

APPENDIX B RESPONSES TO COMMENTS ON THE DRAFT EIS

ORGANIZATION OF APPENDIX B

- B1. Agency Comment Letters**
- B2. Local Government Comment Letters**
- B3. Interest Group Letters and Letters Responding to the
USACE Public Notice**
- B4. Public Comment Letters**
- B5. E-Mailed Public Comments**
- B6. Public Comment Forms**
- B7. Public Hearing Transcripts**

ORGANIZATION OF APPENDIX B

During the public review period for the Draft EIS and the US Army Corps of Engineers Public Notice review period, numerous comments were received from agencies, local governments, interest groups, and the public via letters, emails, comment forms, and the Public Hearing transcripts (a total of 273 documents and 82 Public Hearing speakers). For tracking purposes, each document and Public Hearing speaker was assigned a unique document number and then grouped into seven categories for inclusion in **Appendix B**, as listed below:

- B1. Agencies (Document Numbers a001-a015)
- B2. Local Governments (Document Numbers g001-g006)
- B3. Interest Group letters and letters responding to the US Army Corps of Engineers Public Notice (Document Numbers i001-i013 and u001-u004)
- B4. Public Letters (Document Numbers lc001-lc017)
- B5. Public E-mails (Document Numbers e001-e062)
- B6. Public Comment Forms (Document Numbers c001-c156)
- B7. Public Hearing Transcripts (Document Numbers t001-t082)

Scanned copies of the original documents received are included in this appendix, with the assigned document number placed in the upper right corner of the letters, emails, and comment forms. For the Public Hearing transcripts, the speaker numbers (t001-t082) are labeled under each speaker's name. A table of contents is provided at the beginning of each sub-appendix that lists the documents included in that sub-appendix.

Each document was reviewed, and comments responded to are bracketed and numbered in the scanned documents. Not all statements made in the documents require a response.

For documents in **Appendices B1, B2, B3 and B4**, which are comprised of letters and resolutions, a table of responses to bracketed comments immediately follows each individual document.

For the e-mails and comment forms in **Appendices B5 and B6**, many of these documents did not require individual responses and many simply expressed either support or opposition to the proposed project. For **Appendix B5**, all the e-mails are provided first (ordered by document number), followed by one table containing all the responses to bracketed comments. The same organization applies to **Appendix B6**.

Two Public Hearings were held; one on June 23, 2009, and one on June 25, 2009. Each Public Hearing's transcript is reproduced in its entirety in **Appendix B7**, with comments bracketed. Each Public Hearing transcript is followed by a table containing the responses to bracketed comments.

APPENDIX B1

AGENCY COMMENTS AND RESPONSES

Document Number	Agency	Date	Page Number
a001	Natural Resources Conservation Service (NRCS)	05/14/09	B1-1
a002	NC Department of Administration State Environmental Review Clearinghouse	06/20/09	B1-3
a003	NC Department of Environment and Natural Resources (NCDENR)	07/13/09	B1-5
a004	NC Division of Water Quality (NCDWQ)	06/30/09	B1-7
a005	NC Wildlife Resources Commission (NCWRC)	07/07/09	B1-15
a006	NCDENR Division of Parks and Recreation	06/23/09	B1-20
a007	NCDENR Division of Environmental Health – Public Water Supply Section	05/14/09	B1-22
a008	NCDENR Division of Environmental Health - Public Water Supply Section – Mooresville	05/20/09	B1-24
a009	NCDENR Division of Environmental Health - Land Quality Section	06/08/09	B1-26
a010	NCDENR Division of Environmental Health – Aquifer Protection Section	06/08/09	B1-26
a011	NCDENR Division of Environmental Health - Division of Air Quality	06/08/09	B1-26
a012	NC Department of Cultural Resources State Historic Preservation Office	06/19/09	B1-30
a013	NC Department of Agriculture and Consumer Services Agricultural Services	06/08/09	B1-32
a014	US Department of the Interior Fish and Wildlife Service Asheville Field Office	06/12/09	B1-35
a015	US EPA Region 4 Atlanta Federal Center	07/17/09	B1-39

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a001

United States Department of Agriculture



Natural Resources Conservation Service
4407 Bland Road, Suite 117
Raleigh, North Carolina 27609

Phone: (919) 873-2134
Fax: (919) 873-2154
Email: mike.hinton@nc.usda.gov

May 14, 2009

Ms. Jennifer Harris, P. E.
NC Turnpike Authority
1578 Mail Service Center
Raleigh, NC 27699-1578

Dear Ms. Harris:

Thank you for the opportunity to provide comments on Federal Draft Environmental Impact Statement for Gaston East-West Connector (From I-85 west of Gastonia to I-485/NC 160 near the Charlotte-Douglas International Airport, STIP Project No.: U-3321 in Gaston and Mecklenburg Counties, North Carolina.

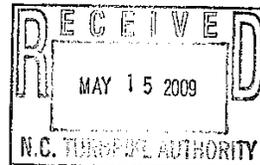
1 [The Natural Resources Conservation Service does not have any comments at this time.

If you need additional information, please feel free to contact me at (919) 873-2134.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Hinton".

Michael J. Hinton
Planning Specialist



Appendix B1 – Agency Comments

Table B1-1: Natural Resources Conservation Service (NRCS)

Document: a001 letter dated May 14, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Information Noted	The Natural Resources Conservation Service does not have any comments at this time.	Comment acknowledged.



a002

North Carolina
Department of Administration

Beverly Eaves Perdue, Governor

July 20, 2009

Britt Cobb, Secretary

Ms. Jennifer Harris
N.C. Turnpike Authority
1578 Mail Service Center
Raleigh, NC 27611

Re: SCH File # 09-E-4220-0322; DEIS; Gaston East-West Corridor: Improvements to east-west transportation mobility in the area around Gastonia and other towns in southern Gaston and western Mecklenburg counties; TIP U-3321

Dear Ms. Harris:

The above referenced environmental impact information has been submitted to the State Clearinghouse under the provisions of the National Environmental Policy Act. According to G.S. 113A-10, when a state agency is required to prepare an environmental document under the provisions of federal law, the environmental document meets the provisions of the State Environmental Policy Act. Attached to this letter for your consideration are the comments made by agencies in the course of this review.

If any further environmental review documents are prepared for this project, they should be forwarded to this office for intergovernmental review.

Should you have any questions, please do not hesitate to call.

Sincerely,

Valerie W. McMillan (576)
Valerie W. McMillan, Director
State Environmental Review Clearinghouse

Attachments

cc: Region F

Mailing Address:
1301 Mail Service Center
Raleigh, NC 27699-1301

Telephone: (919)807-2425
Fax (919)733-9571
State Courier #51-01-00
e-mail valerie.w.mcmillan@doa.nc.gov

Location Address:
116 West Jones Street
Raleigh, North Carolina

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Appendix B1 – Agency Comments

Table B1-2: North Carolina Department of Administration State Environmental Review Clearinghouse

Document: a002 letter dated July 20, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Information Noted	The environmental document meets the provisions of the State Environmental Policy Act.	Comment acknowledged.



North Carolina Department of Environment and Natural Resources

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary



MEMORANDUM

TO: Valerie McMillan
State Clearinghouse

FROM: Melba McGee
Project Review Coordinator

RE: 09-0322 DEIS for the Proposed Gaston East-West Connector in
Gaston and Mecklenburg Counties

DATE: July 13, 2009

The Department of Environment and Natural Resources has reviewed the proposed project.

1 [There continue to be concerns identified by our commenting agencies in relation to significant secondary and cumulative impacts. The department encourages the Department of Transportation to continue to work with our agencies in order to adequately address project concerns prior to finalizing the environmental document. Addressing these comments during the review process and/or during the NEPA Merger Process will avoid delays.

Thank you for the opportunity to comment on this project.

Attachments

Appendix B1 – Agency Comments

Table B1-3: North Carolina Department of Environment and Natural Resources (NCDENR)

Document: a003 letter dated July 13, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Water Resources	There continue to be concerns identified by our commenting agencies in relation to significant secondary and cumulative impacts. The department encourages the Department of Transportation to continue to work with our agencies in order to adequately address project concerns prior to finalizing the environmental document. Addressing these comments during the review process and/or during the NEPA Merger Process will avoid delays..	Subsequent to the Draft EIS, the NCTA has continued to work with state agencies, as documented in Section 3.2 of the Final EIS. Comments received from state agencies regarding the Draft EIS are addressed in the Final EIS. Regarding indirect and cumulative effects, a <i>Gaston East-West Connector Quantitative Indirect and Cumulative Effects Analysis</i> (Louis Berger Group, Inc., August 2010) was prepared for the Preferred Alternative and included in the Final EIS Section 2.5.5 . The scope of the indirect and cumulative effects quantitative analysis was coordinated with state and federal agencies.



North Carolina Department of Environment and Natural Resources
Division of Water Quality

Coleen H. Sullins
Director



a004

Dee Freeman
Secretary

June 30, 2009

MEMORANDUM

Beverly Eaves Perdue
Governor

To: Melba McGee, Environmental Coordinator, Office of Legislative and Intergovernmental Affairs

From: Polly Lespinasse, Division of Water Quality, Mooresville Regional Office

Subject: Comments on the Draft Environmental Impact Statement Related to the Proposed Gaston East-West Connector, Gaston and Mecklenburg Counties, Federal Aid Project No. STP-1213(6), State Project No. 8.2812501, WBS Element 34922.1.TA.1, STIP Project Number U-3321, DENR Project No. 09-0322, Due Date 07/01/09

This office has reviewed the referenced document dated April 2009. The NC Division of Water Quality (NCDWQ) is responsible for the issuance of the Section 401 Water Quality Certification for activities that impact Waters of the U.S., including wetlands. It is our understanding that the project as presented will result in impacts to jurisdictional wetlands, streams, and other surface waters. NCDWQ offers the following comments based on review of the aforementioned document:

Project Specific Comments:

This project is being planned as part of the 404/NEPA Merger Process. As a participating team member, NCDWQ will continue to work with the team.

1. Abernethy Creek, Crowders Creek and Catawba Creek are Class C, 303(d) Waters of the State. Abernethy Creek, Crowders Creek and Catawba Creek are on the 303(d) list for impaired use for aquatic life due to impaired biological integrity. Crowders Creek is also on the 303(d) list for impaired use for aquatic life due to fecal coliform. NCDWQ is very concerned with sediment and erosion impacts that could result from this project. NCDWQ recommends that the most protective sediment and erosion control BMPs be implemented in accordance with implemented in accordance with *Design Standards in Sensitive Watersheds* to reduce the risk of nutrient runoff to Abernethy Creek, Crowders Creek and Catawba Creek. NCDWQ requests that road design plans provide treatment of the storm water runoff through best management practices as detailed in the most recent version of NCDWQ *Stormwater Best Management Practices*.

2. This project is within the Catawba River Basin. Riparian buffer impacts should be avoided and minimized to the greatest extent possible pursuant to 15A NCAC 2B.0243. New development activities located in the protected 50-foot wide riparian areas within the basin shall be limited to "uses" identified within and constructed in accordance with 15A NCAC 2B.0243. Buffer mitigation may be required for buffer impacts resulting from activities classified as "allowable with mitigation" within the "Table of Uses" section of the Buffer Rules or require a variance under the Buffer Rules. A buffer mitigation plan, including use of the NC Ecosystem Enhancement Program, must be provided to NCDWQ prior to approval of the Water Quality Certification.

Mooresville Regional Office
Location: 610 East Center Ave., Suite 301 Mooresville, NC 28115
Phone: (704) 663-1699 | Fax: (704) 663-6040 | Customer Service: 1-877-623-6748
Internet: www.nowaterquality.org

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a004

3. The recommended alternative (DSA 9) will impact approximately 7.5 acres of wetlands and 38,894 linear feet of perennial streams. In addition, an additional 10,101 linear feet of intermittent streams will be impacted by this project. NCDWQ is concerned that the required amount of mitigation will not be available in the Hydrologic Cataloguing Unit, adjacent Hydrologic Cataloguing Unit and/or Ecoregion. All efforts to avoid and minimize wetland and stream impacts should be considered during the alternative selection and development process. In addition, efforts should be made to identify on-site mitigation opportunities.

4. The document indicates that stormwater runoff effects can be minimized through implementation of local stormwater ordinances. NCDWQ remains concerned regarding the effects of stormwater runoff associated with the construction of this project. Stormwater discharges which are located within the riparian buffer associated with the Catawba River Basin will require the implementation of the appropriate stormwater management facility in accordance with 15A NCAC 2B.0243. NCDWQ would recommend that the North Carolina Turnpike Authority (NCTA) consider additional stormwater facilities in other areas of the project where the Catawba River Basin buffer regulations are not applicable, specifically in areas draining to those jurisdictional resources which occur on the 303(d) list (indicated in Item #1 above).

5. The NCTA should be aware that NCDWQ will require a quantitative Indirect and Cumulative Impacts (ICI) analysis once the preferred alternative is selected.

General Comments:

6. The environmental document should provide a detailed and itemized presentation of the proposed impacts to wetlands and streams with corresponding mapping. If mitigation is necessary as required by 15A NCAC 2H.0506(h), it is preferable to present a conceptual (if not finalized) mitigation plan with the environmental documentation. Appropriate mitigation plans will be required prior to issuance of a 401 Water Quality Certification.

7. Environmental impact statement alternatives shall consider design criteria that reduce the impacts to streams and wetlands from storm water runoff. These alternatives shall include road designs that allow for treatment of the storm water runoff through best management practices as detailed in the most recent version of NCDWQ's *Stormwater Best Management Practices Manual*, July 2007, such as grassed swales, buffer areas, preformed scour holes, retention basins, etc.

8. After the selection of the preferred alternative and prior to an issuance of the 401 Water Quality Certification, the NCTA is respectfully reminded that they will need to demonstrate the avoidance and minimization of impacts to wetlands (and streams) to the maximum extent practical. In accordance with the Environmental Management Commission's Rules {15A NCAC 2H.0506(h)}, mitigation will be required for impacts of greater than 1 acre to wetlands. In the event that mitigation is required, the mitigation plan shall be designed to replace appropriate lost functions and values. The NC Ecosystem Enhancement Program may be available for use as wetland mitigation.

9. In accordance with the Environmental Management Commission's Rules {15A NCAC 2H.0506(h)}, mitigation will be required for impacts of greater than 150 linear feet to any single perennial stream. In the event that mitigation is required, the mitigation plan shall be designed to replace appropriate lost functions and values. The NC Ecosystem Enhancement Program may be available for use as stream mitigation.

10. Future documentation, including the 401 Water Quality Certification Application, shall continue to include an itemized listing of the proposed wetland and stream impacts with corresponding mapping.

11. NCDWQ is very concerned with sediment and erosion impacts that could result from this project. The NCTA shall address these concerns by describing the potential impacts that may occur to the aquatic environments and any mitigating factors that would reduce the impacts.

12. An analysis of cumulative and secondary impacts anticipated as a result of this project is required. The type and detail of analysis shall conform to the NC Division of Water Quality Policy on the assessment of secondary and cumulative impacts dated April 10, 2004.

13 8. The NCTA is respectfully reminded that all impacts, including but not limited to, bridging, fill, excavation and clearing, and rip rap to jurisdictional wetlands, streams, and riparian buffers need to be included in the final impact calculations. These impacts, in addition to any construction impacts, temporary or otherwise, also need to be included as part of the 401 Water Quality Certification Application.

14 9. Where streams must be crossed, NCDWQ prefers bridges be used in lieu of culverts. However, we realize that economic considerations often require the use of culverts. Please be advised that culverts should be countersunk to allow unimpeded passage by fish and other aquatic organisms. Moreover, in areas where high quality wetlands or streams are impacted, a bridge may prove preferable. When applicable, the NCTA should not install the bridge bents in the creek, to the maximum extent practicable.

15 10. Whenever possible, NCDWQ prefers spanning structures. Spanning structures usually do not require work within the stream or grubbing of the streambanks and do not require stream channel realignment. The horizontal and vertical clearances provided by bridges shall allow for human and wildlife passage beneath the structure. Fish passage and navigation by canoeists and boaters shall not be blocked. Bridge supports (bents) should not be placed in the stream when possible.

16 11. Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. Please refer to the most current version of NCDWQ's *Stormwater Best Management Practices*.

17 12. Sediment and erosion control measures should not be placed in wetlands or streams.

18 13. Borrow/waste areas should avoid wetlands to the maximum extent practical. Impacts to wetlands in borrow/waste areas will need to be presented in the 401 Water Quality Certification and could precipitate compensatory mitigation.

19 14. The 401 Water Quality Certification application will need to specifically address the proposed methods for stormwater management. More specifically, stormwater shall not be permitted to discharge directly into streams or surface waters.

20 15. Based on the information presented in the document, the magnitude of impacts to wetlands and streams will require an **Individual Permit (IP)** application to the Corps of Engineers and corresponding 401 Water Quality Certification. Please be advised that a 401 Water Quality Certification requires satisfactory protection of water quality to ensure that water quality standards are met and no wetland or stream uses are lost. Final permit authorization will require the submittal of a formal application by the NCTA and written concurrence from NCDWQ. Please be aware that any approval will be contingent on appropriate avoidance and minimization of wetland and stream impacts to the maximum extent practical, the development of an acceptable stormwater management plan, and the inclusion of appropriate mitigation plans where appropriate.

21 16. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.

22 17. If temporary access roads or detours are constructed, the site shall be graded to its preconstruction contours and elevations. Disturbed areas shall be seeded or mulched to stabilize the soil and appropriate native woody species shall be planted. When using temporary structures the area shall be cleared but not grubbed. Clearing the area with chain saws, mowers, bush-hogs, or other mechanized equipment and leaving the stumps and root mat intact allows the area to re-vegetate naturally and minimizes soil disturbance.

23 18. Placement of culverts and other structures in waters, streams, and wetlands shall be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life.

23 Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by NCDWQ. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact NCDWQ for guidance on how to proceed and to determine whether or not a permit modification will be required.

24 19. If multiple pipes or barrels are required, they shall be designed to mimic natural stream cross section as closely as possible including pipes or barrels at flood plain elevation, floodplain benches, and/or sills may be required where appropriate. Widening the stream channel should be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.

25 20. If foundation test borings are necessary; it shall be noted in the document. Geotechnical work is approved under General 401 Certification Number 3687/Nationwide Permit No. 6 for Survey Activities.

26 21. Sediment and erosion control measures sufficient to protect water resources must be implemented and maintained in accordance with the most recent version of North Carolina Sediment and Erosion Control Planning and Design Manual and the most recent version of NCS000250.

27 22. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.

28 23. While the use of National Wetland Inventory (NWI) maps and soil survey maps are useful tools, their inherent inaccuracies require that qualified personnel perform onsite wetland delineations prior to permit approval.

29 24. Heavy equipment should be operated from the bank rather than in stream channels in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into streams. This equipment shall be inspected daily and maintained to prevent contamination of surface waters from leaking fuels, lubricants, hydraulic fluids, or other toxic materials.

30 25. Riprap shall not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be properly designed, sized and installed.

31 26. Riparian vegetation (native trees and shrubs) shall be preserved to the maximum extent possible. Riparian vegetation must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.

NCDWQ appreciates the opportunity to provide comments on your project. Should you have any questions or require any additional information, please contact Polly Lespinasse at (704) 663-1699.

- Cc: Steve Lund, US Army Corps of Engineers, Asheville Field Office (electronic copy)
- George Hoops, Federal Highway Administration
- Chris Militscher, Environmental Protection Agency (electronic copy)
- Marla Chambers, NC Wildlife Resources Commission (electronic copy)
- Marella Buncick, US Fish and Wildlife Service (electronic copy)
- Sonia Gregory, NCDWQ Central Office (electronic copy)
- File Copy

Table B1-4: NCDENR – Division of Water Quality

Document: a004 letter dated June 30, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Water Resources	NCDWQ is very concerned with sediment and erosion impacts that could result from this project. NCDWQ recommends that the most protective sediment and erosion control BMPs be implemented in accordance with Design Standards in Sensitive Watersheds to reduce the risk of nutrient runoff to Abernethy Creek, Crowders Creek and Catawba Creek. NCDWQ requests that road design plans provide treatment of the stormwater runoff through best management practices as detailed in the most recent version of NCDWQ Stormwater Best Management Practices.	Prior to construction, an erosion and sedimentation plan would be developed for the Preferred Alternative in accordance with applicable rules, regulations and guidance, including the latest version of the NCDENR publication <i>Erosion and Sediment Control Planning and Design Manual</i> , the most recent version of NCDWQ's <i>Stormwater Best Management Practices Manual</i> (July 2007), and NCDOT's <i>Best Management Practices for Protection of Surface Waters</i> . NCTA will coordinate with NCDWQ to obtain the Section 401 Water Quality Certification.
2	Water Resources	This project is within the Catawba River Basin. Riparian buffer impacts should be avoided and minimized to the greatest extent possible pursuant to 15A NCAC 2B.0243. New development activities located in the protected 50-foot wide riparian areas within the basin shall be limited to "uses" identified within and constructed in accordance with 15A NCAC 2B.0243. Buffer mitigation may be required for buffer impacts resulting from activities classified as "allowable with mitigation" within the "Table of Uses" section of the Buffer Rules or require a variance under the Buffer Rules. A buffer mitigation plan, including use of the NC Ecosystem Enhancement Program, must be provided to NCDWQ prior to approval of the Water Quality Certification.	The NCTA and FHWA continued working with the environmental resource and regulatory agencies to reach agreement on the Preferred Alternative/LEDPA described in Section 3.2.2 of the Final EIS (DSA D). NCTA will obtain all required permits prior to project construction and will implement mitigation. As discussed in Section 2.5.4.4 , the Preferred Alternative refined preliminary design would impact 3,642 square feet of Zone 1 buffers and 8,859 square feet of Zone 2 buffers. The total impacts to buffers would be 12,501 square feet (0.28 acre). This is less than the threshold of one-third acre that requires mitigation. During final design, the amount of buffer area required would be recalculated. Impacts less than one-third acre would still require, prior to construction, written authorization from the NCDWQ for disturbances to the buffer (15A NCAC 02B.0244).
3	Water Resources	The recommended alternative (DSA 9) will impact approximately 7.5 acres of wetlands and 38,894 linear feet of perennial streams. In addition, an additional 10,101 linear feet of intermittent streams will be impacted by this project. NCDWQ is concerned that the required amount of mitigation will not be available in the Hydrologic Cataloguing Unit, adjacent Hydrologic Cataloguing Unit and/or Ecoregion. All efforts to avoid and minimize wetland and stream impacts should be considered during the alternative selection and development process. In addition, efforts should be made to identify on-site mitigation opportunities.	The NCTA and FHWA will work with NCDWQ and the USACE to identify and provide all required mitigation to satisfy compensatory mitigation requirements for this project. A conceptual mitigation plan for the Preferred Alternative that identifies off-site and on-site components is summarized in Section 2.5.4.4 . Itemized impacts to wetlands and streams by individual resource are included in Appendix I of the Final EIS. Avoidance and minimization measures were incorporated into the preliminary engineering designs for the DSAs, as summarized in Section 6.4.5.3 of the Draft EIS. These measures were discussed with the environmental resource and regulatory agencies at Turnpike Environmental Agency Coordination (TEAC) meetings on February 5, March 4, and April 8, 2008. In addition, avoidance and minimization measures for the Preferred Alternative were discussed with agencies on February 16, 2010, and NEPA/404 Merger process Concurrence Point 4a was achieved (see form in Appendix G of the Final EIS). Section 2.3.3 of the Final EIS describes additional avoidance and minimization measures that resulted in an approximate 25 percent reduction in stream impacts (2.36 miles) and an approximate 6 percent reduction in wetland impacts (0.4 acre).

Appendix B1 – Agency Comments

Table B1-4: NCDENR – Division of Water Quality

Document: a004 letter dated June 30, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
4	Water Resources	The document indicates that stormwater runoff effects can be minimized through implementation of local stormwater ordinances. NCDWQ remains concerned regarding the effects of stormwater runoff associated with the construction of this project. Stormwater discharges which are located within the riparian buffer associated with the Catawba River Basin will require the implementation of the appropriate stormwater management facility in accordance with 15A NCAC 28.0243. NCDWQ would recommend that the North Carolina Turnpike Authority (NCTA) consider additional stormwater facilities in other areas of the project where the Catawba River Basin buffer regulations are not applicable, specifically in areas draining to those jurisdictional resources which occur on the 303(d) list (indicated in Item # 1 above).	Prior to construction, an erosion and sedimentation plan would be developed for the Preferred Alternative in accordance with applicable rules, regulations and guidance, including the NCDENR publication <i>Erosion and Sediment Control Planning and Design</i> (June 2006) and NCDOT's <i>Best Management Practices for Protection of Surface Waters</i> . NCTA will coordinate with NCDWQ to obtain the Section 401 Water Quality Certification.
5	Indirect and Cumulative Effects	The NCTA should be aware that NCDWQ will require a quantitative Indirect and Cumulative Impacts (ICI) analysis once the preferred alternative is selected.	A quantitative indirect and cumulative effects analysis was prepared for the Preferred Alternative (DSA 9) and summarized in Section 2.5.5 of the Final EIS. The NC Division of Water Quality participated in the scoping of this quantitative study.
6	Water Resources	The environmental document should provide a detailed and itemized presentation of the proposed impacts to wetlands and streams with corresponding mapping. If mitigation is necessary as required by 15A NCAC 2H.0506(h), it is preferable to present a conceptual (if not finalized) mitigation plan with the environmental documentation. Appropriate mitigation plans will be required prior to issuance of a 401 Water Quality Certification.	The Draft EIS (Section 6.4.4 and Appendix N) provides a detailed presentation of potential impacts to jurisdictional resources for each DSA's preliminary design. The potential impacts to jurisdictional resources for the Preferred Alternative (DSA 9) have been updated in the Final EIS in Section 2.5.4.4 , and are shown in Figure 2-3 . A Conceptual Mitigation Plan has been prepared for the Preferred Alternative, including a discussion of on-site mitigation. In addition, NCTA has received agreement from EEP to provide compensatory mitigation through the in-lieu fee program.
7	Water Resources	Environmental impact statement alternatives shall consider design criteria that reduce the impacts to streams and wetlands from stormwater runoff. These alternatives shall include road designs that allow for treatment of the stormwater runoff through best management practices as detailed in the most recent version of NCDWQ's Stormwater Best Management Practices Manual, July 2007, such as grassed swales, buffer areas, preformed scour holes, retention basins, etc.	Prior to construction, an erosion and sedimentation plan would be developed for the Preferred Alternative in accordance with applicable rules, regulations and guidance, including the latest version of the NCDENR publication <i>Erosion and Sediment Control Planning and Design Manual</i> , the most recent version of NCDWQ's <i>Stormwater Best Management Practices Manual</i> (July 2007), and NCDOT's <i>Best Management Practices for Protection of Surface Waters</i> . NCTA will coordinate with NCDWQ to obtain the Section 401 Water Quality Certification.

Appendix B1 – Agency Comments

Table B1-4: NCDENR – Division of Water Quality

Document: a004 letter dated June 30, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
8	Water Resources	After the selection of the preferred alternative and prior to an issuance of the 401 Water Quality Certification, the NCTA is respectfully reminded that they will need to demonstrate the avoidance and minimization of impacts to wetlands (and streams) to the maximum extent practical. In accordance with the Environmental Management Commission's Rules {15A NCAC 2H.0506(h)}, mitigation will be required for impacts of greater than one acre to wetlands. In the event that mitigation is required, the mitigation plan shall be designed to replace appropriate lost functions and values. The NC Ecosystem Enhancement Program may be available for use as wetland mitigation..	See response to Comment 3 in NCDWQ's letter (Document a004).
9	Water Resources	In accordance with the Environmental Management Commission's Rules {15A NCAC 2H.0506(h)}, mitigation will be required for impacts of greater than 150 linear feet to any single perennial stream. In the event that mitigation is required, the mitigation plan shall be designed to replace appropriate lost functions and values. The NC Ecosystem Enhancement Program may be available for use as stream mitigation.	See response to Comment 3 in NCDWQ's letter (Document a004).
10	Water Resources	Future documentation, including the 401 Water Quality Certification Application, shall continue to include an itemized listing of the proposed wetland and stream impacts with corresponding mapping.	All impacts, corresponding mapping, and mitigation information will be included in the 401 Water Quality Certification Application submitted by NCTA to NCDWQ. Also, see response to Comment 6 in NCDWQ's letter (Document a004).
11	Water Resources	NCDWQ is very concerned with sediment and erosion impacts that could result from this project. The NCTA shall address these concerns by describing the potential impacts that may occur to the aquatic environments and any mitigating factors that would reduce the impacts.	See response to Comment 1 in NCDWQ's letter (Document a004).
12	Water Resources	An analysis of cumulative and secondary impacts anticipated as a result of this project is required. The type and detail of analysis shall conform to the NC Division of Water Quality Policy on the assessment of secondary and cumulative impacts dated April 10, 2004.	See response to Comment 5 in NCDWQ's letter (Document a004).
13	Water Resources	The NCTA is respectfully reminded that all impacts, including but not limited to, bridging, fill, excavation and clearing, and rip rap to jurisdictional wetlands, streams, and riparian buffers need to be included in the final impact calculations. These impacts, in addition to any construction impacts, temporary or otherwise, also need to be included as part of the 401 Water Quality Certification Application.	All project impacts to jurisdictional resources, including short-term construction impacts, will be included in final impact calculations provided in the permit applications.

Appendix B1 – Agency Comments

Table B1-4: NCDENR – Division of Water Quality

Document: a004 letter dated June 30, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
14	Water Resources	Where streams must be crossed, NCDWQ prefers bridges be used in lieu of culverts. However, we realize that economic considerations often require the use of culverts. Please be advised that culverts should be countersunk to allow unimpeded passage by fish and other aquatic organisms. Moreover, in areas where high quality wetlands or streams are impacted, a bridge may prove preferable. When applicable, the NCTA should not install the bridge bents in the creek, to the maximum extent practicable.	Culverts will be buried in accordance with NCDOT Hydraulic Unit's March 18, 2004 reference entitled "Pipe Burial Depths. The major drainage structures and crossings were reviewed by the environmental resource and regulatory agencies at Turnpike Environmental Agency Coordination meetings on February 5, March 4, and April 8, 2008. As a result of these meetings, NEPA/404 Merger process Concurrence Point 2a was achieved (form included in Appendix A-1 of the Draft EIS), and the NCTA agreed to include bridges at several locations previously recommended for culverts in order to avoid or minimize stream and wetland impacts.
15	Water Resources	Whenever possible, NCDWQ prefers spanning structures. Spanning structures usually do not require work within the stream or grubbing of the stream banks and do not require stream channel realignment. The horizontal and vertical clearances provided by bridges shall allow for human and wildlife passage beneath the structure. Fish passage and navigation by canoeists and boaters shall not be blocked. Bridge supports (bents) should not be placed in the stream when possible.	Comment acknowledged and will be considered during final design.
16	Water Resources	Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. Please refer to the most current version of NCDWQ's <i>Stormwater Best Management Practices</i> .	NCTA acknowledges this comment. The Design-Build team will be required to provide bridge drainage features that prevent direct discharge into surface waters.
17	Water Resources	Sediment and erosion control measures should not be placed in wetlands or streams.	Comment acknowledged. See response to Comment 1 in NCDWQ's letter (Document a004).
18	Water Resources	Borrow/waste areas should avoid wetlands to the maximum extent practical. Impacts to wetlands in borrow/waste areas will need to be presented in the 401 Water Quality Certification and could precipitate compensatory mitigation.	Comment acknowledged. The Design-Build team will be required to acquire applicable permits relative to borrow pits and comply with requirements for borrow pits, dewatering, and any temporary work conducted in jurisdictional areas.
19	Water Resources	The 401 Water Quality Certification application will need to specifically address the proposed methods for stormwater management. More specifically, stormwater shall not be permitted to discharge directly into streams or surface waters.	The 401 Water Quality Certification application will include proposed methods for stormwater management.
20	Water Resources	Based on the information presented in the document, the magnitude of impacts to wetlands and streams will require an Individual Permit (IP) application to the Corps of Engineers and corresponding 401 Water Quality Certification. Please be advised that a 401 Water Quality Certification requires satisfactory protection or water quality to ensure that water quality standards are met and no wetland or stream uses are lost. Final permit authorization will require the submittal of a formal application by the NCTA and written concurrence from NCDWQ. Please be aware that any approval will be contingent on appropriate avoidance and minimization of wetland and stream impacts to the maximum extent practical, the development of an	NCTA will obtain all applicable permits, including a Section 404 Individual Permit and associated 401 Water Quality Certification. Avoidance and minimization measures incorporated into the Preferred Alternative are discussed in Sections 2.3.3 and 2.5.4.4 of the Final EIS.

Appendix B1 – Agency Comments

Table B1-4: NCDENR – Division of Water Quality

Document: a004 letter dated June 30, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
		acceptable stormwater management plan, and the inclusion of appropriate mitigation plans where appropriate.	
21	Water Resources	If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.	All currently approved NCDOT BMPs for the Protection of Surface Waters, in accordance with the approved erosion and sedimentation control plan, will be implemented during project construction.
22	Water Resource	If temporary access roads or detours are constructed, the site shall be graded to its preconstruction contours and elevations. Disturbed areas shall be seeded or mulched to stabilize the soil and appropriate native woody species shall be planted. When using temporary structures the area shall be cleared but not grubbed. Clearing the area with chainsaws, mowers, bush-hogs, or other mechanized equipment and leaving the stumps and root mat intact allows the area to re-vegetate naturally and minimizes soil disturbance.	Temporary access and haul roads, other than public roads, constructed or used in connection with the project shall be considered a part of the project and addressed in the Erosion and Sedimentation Control Plan. This commitment will be included in contracts of Design-Build Teams.
23	Water Resources	Placement of culverts and other structures in waters, streams, and wetlands shall be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by NCDWQ. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact NCDWQ for guidance on how to proceed and to determine whether or not a permit modification will be required.	Culverts will be buried in accordance with NCDOT Hydraulic Unit's March 18, 2004 reference entitled "Pipe Burial Depths."
24	Water Resources	If multiple pipes or barrels are required, they shall be designed to mimic natural stream cross section as closely as possible including pipes or barrels at flood plain elevation, floodplain benches, and/or sills may be required where appropriate. Widening the stream channel should be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.	The final design for the Preferred Alternative will be completed in accordance with the NCDOT <i>Guidelines for Drainage Studies and Hydraulic Design</i> .
25	Water Resources	If foundation test borings are necessary, it shall be noted in the document. Geotechnical work is approved under General 401 Certification Number 3687 / Nationwide Permit No.6 for Survey Activities.	If additional geotechnical investigations are needed, subsurface investigations, including borings, will be conducted in accordance with the current NCDOT <i>Geotechnical Unit Guidelines and Procedures Manual</i> .

Appendix B1 – Agency Comments

Table B1-4: NCDENR – Division of Water Quality

Document: a004 letter dated June 30, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
26	Water Resources	Sediment and erosion control measures sufficient to protect water resources must be implemented and maintained in accordance with the most recent version of North Carolina Sediment and Erosion Control Planning and Design Manual and the most recent version of NCS000250.	Comment acknowledged. The Erosion and Sediment Control/Stormwater Pollution Prevention Plan will be implemented and maintained during the construction of the project in accordance with all applicable laws and regulations.
27	Water Resources	All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.	NCTA will implement approved BMP measures from the most current version of NCDOT <i>Construction and Maintenance Activities Manual</i> .
28	Water Resources	While the use of National Wetland Inventory (NWI) maps and soil survey maps are useful tools, their inherent inaccuracies require that qualified personnel perform onsite wetland delineations prior to permit approval.	As discussed in Section 6.4.3.1 of the Draft EIS, wetlands were delineated by qualified personnel from October 2006 through March 2007.
29	Water Resources	Heavy equipment should be operated from the bank rather than in stream channels in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into streams. This equipment shall be inspected daily and maintained to prevent contamination of surface waters from leaking fuels, lubricants, hydraulic fluids, or other toxic materials.	NCTA will implement approved BMP measures from the most current version of NCDOT <i>Construction and Maintenance Activities Manual</i> .
30	Water Resources	Riprap shall not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be properly designed, sized and installed.	All appropriate measures will be taken to protect streams and aquatic life based on NCDOT standard practices. Rip rap is removed from streams where stream velocities are not erosive.
31	Water Resources	Riparian vegetation (native trees and shrubs) shall be preserved to the maximum extent possible. Riparian vegetation must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.	Appropriate measures will be taken to preserve and reestablish riparian vegetation to the maximum extent possible. NCTA will require the Design Build team to preserve trees, where possible, along the project. In addition, final designs will be prepared in accordance with BMPs from NCDOT's toolbox, which recommend the reestablishment of riparian vegetation.



a005

North Carolina Wildlife Resources Commission

TO: Melba McGee, Environmental Coordinator
Department of Environment and Natural Resources

FROM: Marla Chambers, Western NCDOT Permit Coordinator *Marla Chambers*
Habitat Conservation Program, NCWRC

DATE: July 7, 2009

SUBJECT: Review of the Draft Environmental Impact Statement for the proposed Gaston East-West Connector, a toll road from I-85 west of Gastonia to I-485 near the Charlotte-Douglas International Airport, Gaston and Mecklenburg Counties. TIP No. U-3321. DENR Project No.: 09-0322, due 07/01/2009, extended to 07/07/2009.

The North Carolina Turnpike Authority (NCTA) has submitted a Draft Environmental Impact Statement (DEIS) for the proposed Gaston East-West Connector, which had previously been proposed by the North Carolina Department of Transportation (NCDOT) as a non-toll facility. Staff biologists with the North Carolina Wildlife Resources Commission (NCWRC) have reviewed the information provided and represent the agency at Turnpike Environmental Agency Coordination (TEAC) meetings. These comments are provided in accordance with the provisions of the National Environmental Policy Act (42 U.S.C. 4332(2)(c)) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661-667d).

Comments regarding this project have been submitted to NCDOT and NCTA, as appropriate, throughout the planning process through written comments, emails, and participation in meetings. We have expressed concerns from the beginning of our involvement in the project about the high levels of direct and indirect impacts to the natural environment and whether the benefit of the roadway justifies the negative impacts. It appears that improvements will need to be made to the existing east-west roadways, I-85 and US 74/29, regardless of whether or not this project is built.

NCTA proposes to construct a controlled-access new location toll facility from I-85 west of Gastonia to I-485 near the Charlotte-Douglas International Airport; alternatives range in length

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Gaston East-West Connector DEIS
Gaston & Mecklenburg Co's.

2

July 7, 2009

from 21.4 to 23.7 miles. The document examined 12 end-to-end Detailed Study Alternatives (DSAs) and identified DSA 9 as the Recommended Alternative. A Preferred Alternative will be selected after the comment period for the DEIS. Stream impacts ranged from 47,188 to 60,224 linear feet among the alternatives. Wetland impacts ranged from 6.9 to 13.2 acres. Terrestrial impacts ranged from 1,759 to 1,908 acres in the largely rural project area.

The preliminary engineering designs for the DSAs are for six lanes with a 46-foot median, based on traffic projections from the non-toll scenario. The document indicated that if traffic projections for the toll scenario show four lanes to be sufficient, the footprint of the project would not change, but instead, the median width would be increased. We recommend that the median remain the same width and the footprint be narrowed for a four-lane facility in order to minimize impacts to area resources. A wider right-of-way could be preserved for possible future widening, but additional impacts to streams and wetlands should be avoided until such widening occurs.

The project crosses both main arms of Lake Wylie, the Catawba River and South Fork Catawba River arms. Section S.8.5.2 in the Summary does not clarify that these rivers and Lake Wylie are the same bodies of water, which could cause some confusion, however clarification does occur in later chapters. Lake Wylie is a popular recreational area for boating, fishing and waterskiing. The internationally renowned Bass Masters Classic fishing tournament was held at Lake Wylie in 2004. The most rapidly growing area of Gaston County is area closest to the lake.

Water quality in many project area waterways is degraded, as evidenced by the number of streams on the Final 2006 303(d) list or Draft 2008 303(d) list: South Fork Catawba River, Catawba Creek, McGill Branch, Crowders Creek, and Abernathy Creek. Two additional water resources are on the Final 2006 305(b) list due to not supporting one or more of their designated uses, but not sufficiently degraded to be placed on the 303(d) list: Catawba River/Lake Wylie and Blackwood Creek. Further degradation is likely to occur from direct and indirect impacts to area waterways. Sediment and erosion control measures should adhere to the Design Standards in Sensitive Watersheds and additional measures to manage growth and development will be needed to minimize negative impacts to water quality and the area's natural resources. Mitigation efforts should focus on improving degraded streams in the project area.

Negative impacts to terrestrial resources and wildlife are another significant concern, as the road construction and additional development will reduce wildlife habitat and increase habitat fragmentation in the project area. Collisions with wildlife are a serious safety concern for the traveling public, as well. Where significant floodplain fills are proposed, we recommend installing floodplain culverts in the road fill to provide wildlife crossings, reduce flooding and flood damage, restore some hydrological functions of the floodplain, and reduce flood velocities at the stream crossings. We commend NCTA for committing to coordinating with NCWRC, U. S. Fish and Wildlife Service (USFWS), and US Environmental Protection Agency (USEPA) on the feasibility and design of a wildlife passage at stream S156 and for agreeing to provide several bridges at crossings that were not required to convey floodwaters in order to minimize stream and wetland impacts, which will also enhance wildlife passage.

July 7, 2009

6 Bald eagles (*Haliaeetus leucocephalus*), which have been removed from the Endangered Species list, but are still protected under the Bald and Golden Eagle Protection Act, occur around Lake Wylie. Protective measure should be provided. We disagree with the statement in the North Carolina Endangered Species Act paragraph in Section 6.5.1.2: that indicated state protection of state-listed species does not apply to transportation projects. We believe it is NCDOT's and NCTA's responsibility as state agencies to protect state-listed species in the construction of transportation facilities throughout the state and we request their assistance in protecting these animals. We see nothing in the Article (NCGS Chapter 113, Article 25) that would exempt transportation projects from the Act.

7 Indirect and cumulative impacts are a major concern and have the potential to be even more significant than the direct impacts. According to the DEIS, Gaston County has a high potential for accelerated growth and indirect effects to notable features as a result of the project and Mecklenburg County has a moderate potential. Both counties have a moderate potential to experience cumulative effects related to land use changes. The rural nature of the project area is likely to be lost without additional significant measures in place to manage growth. Urban and suburban sprawl are occurring in portions of the project vicinity. While some stormwater management controls exist to provide some protection of water quality, measures such as placing limits on impervious surfaces and preserving riparian buffers to streams and wetlands are lacking. Numerous studies have shown that when 10-15% of a watershed is converted to impervious surfaces, there is a serious decline in the health of receiving waters (Schueler 1994) and the quality of fish habitat and wetlands are negatively impacted (Booth 1991, Taylor 1993). Measures to mitigate secondary and cumulative impacts can be found in the Guidance Memorandum to Address and Mitigate Secondary and Cumulative Impacts to Aquatic and Terrestrial Wildlife Resources and Water Quality (NCWRC 2002). We also strongly encourage the use of Low Impact Development (LID) practices. Information on these measures can be found at www.lowimpactdevelopment.org, <http://www.epa.gov/owow/nps/lid/lidnatl.pdf> and <http://www.stormwatercenter.net/>.

Thank you for the opportunity to review and comment on this project. If you have any questions regarding these comments, please contact me at (704) 485-8291. We look forward to continuing our participation in the planning process for this project.

Literature Cited:

- Booth, D. 1991. Urbanization and the natural drainage system-impacts, solutions, and prognoses. *Northwest Environmental Journal*. 7(1):93-118.
- NCWRC (North Carolina Wildlife Resources Commission). 2002. Guidance Memorandum to Address and Mitigate Secondary and Cumulative Impacts to Aquatic and Terrestrial Wildlife Resources and Water Quality. NCWRC, Raleigh. Available: http://www.ncwildlife.org/pg07_WildlifeSpeciesCon/pg7c3_impacts.pdf. (February 2003).
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July 7, 2009

Taylor, B.L. 1993. The influences of wetland and watershed morphological characteristics and relationships to wetland vegetation communities. Masters thesis. Dept. of Civil Engineering. University of Washington. Seattle, WA.

cc: Steve Lund, USACE
Marella Buncick, USFWS
Christopher Militischer, USEPA
Polly Lespinasse, NCDWQ
Angie Rodgers, NCNHP

Appendix B1 – Agency Comments

Table B1-5: North Carolina Wildlife Resources Commission (NCWRC)

Document: a005 letter dated July 7, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Water Resources	Comments regarding this project have been submitted to NCDOT and NCTA, as appropriate, throughout the planning process through written comments, emails, and participation in meetings. We have expressed concerns from the beginning of our involvement in the project about high levels of direct and indirect impacts to the natural environment and whether the benefit of the roadway justifies the negative impacts. It appears that improvements will need to be made to the existing east-west roadways, I-85 and US 74/29, regardless of whether or not this project is built.	<p>The NCTA appreciates the WRC's involvement throughout the study. In accordance with NCDOT procedure, a Qualitative Indirect and Cumulative Effects (ICE) report was completed and included in the Draft EIS. NCTA then prepared a Quantitative ICE report for the Preferred Alternative, as summarized in Section 2.5.5 of the Final EIS. Prior to commencement of both the qualitative study and the quantitative study, scoping with the environmental resource and regulatory agencies was conducted to ensure the study approach and scope met the expectations of the agencies.</p> <p>Regarding improvements on I-85 and US 29-74, the Gaston Urban Area MPO has three projects listed in the 2035 LRTP along these roadways. These projects do not involve major or lengthy widening of either roadway. One project includes safety improvements at the I-85/US 321 interchange to be constructed by 2015, another is the addition of a westbound lane to US 29-74 from Church Street to Cox Road to be constructed by 2025, and the third is the widening of the US 29-74 bridge over the Catawba River from four lanes to six lanes to be constructed by 2025.</p>
2	Water Resources	The preliminary engineering designs for the DSAs are for six lanes with a 46-foot median, based on traffic projections from the non-toll scenario. The document indicated that if traffic projections for the toll scenario show four lanes to be sufficient, the footprint of the project would not change, but instead, the median width would be increased. We recommend that the median remain the same width and the footprint be narrowed for a four-lane facility in order to minimize impacts to area resources. A wider right-of-way could be preserved for possible future widening, but additional impacts to streams and wetlands should be avoided until such widening occurs.	Section 2.3.1.1 of the Final EIS describes the Preferred Alternative typical section. Based on a review of year 2035 traffic projections (Toll Scenario) for the Preferred Alternative, two through lanes in each direction are needed, along with additional auxiliary lanes in each direction between the NC 273 (Southpoint Road) interchange and the I-485 interchange. The median was reduced from 70 feet in the original preliminary designs (if the facility were four lanes wide) to 50 feet in the revised preliminary designs. This change also reduces the typical right-of-way width by 20 feet, from approximately 300 feet to 280 feet. Figure 2-4 shows the revised typical section. Although not part of the ultimate project, if a fifth and sixth lane are needed in the future beyond the horizon year, they would be constructed to the inside, resulting in a 26-foot paved median (two 10-foot shoulders and six feet for a barrier, bridge piers, signs, etc.) instead of the original 46 foot median.
3	Water Resources	The project crosses both main arms of Lake Wylie, the Catawba River and South Fork Catawba River arms. Section S.8.5.2 in the Summary does not clarify that these rivers and Lake Wylie are the same bodies of water, which could cause some confusion, however clarification does occur in later chapters. Lake Wylie is a popular recreational area for boating, fishing and waterskiing. The internationally renowned Bass Masters Classic fishing tournament was held at Lake Wylie in 2004. The most rapidly growing area of Gaston County is area closest to the lake.	Section 1.3.4.2 of the Final EIS (Water Resources section of the summary of the Draft EIS) includes text to clarify that Lake Wylie includes portions of Catawba River, South Fork Catawba River, and Catawba Creek within the project study area.

Appendix B1 – Agency Comments

Table B1-5: North Carolina Wildlife Resources Commission (NCWRC)

Document: a005 letter dated July 7, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
4	Water Resources	Water quality in many project area waterways is degraded, as evidenced by the number of streams on the Final 2006 303(d) list or Draft 2008 303(d) list: South Fork Catawba River, Catawba Creek, McGill Branch, Crowders Creek, and Abernathy Creek. Two additional water resources are on the Final 2006 305(b) list due to not supporting one or more of their designated uses, but not sufficiently degraded to be placed on the 303(d) list: Catawba River/Lake Wylie and Blackwood Creek. Further degradation is likely to occur from direct and indirect impacts to area waterways. Sediment and erosion control measures should adhere to the Design Standards in Sensitive Watersheds and additional measures to manage growth and development will be needed to minimize negative impacts to water quality and the area's natural resources. Mitigation efforts should focus on improving degraded streams in the project area.	NCTA will follow all BMPs required for the 401 Water Quality Certification, in accordance with applicable rules and regulations. Regarding growth management measures, NCTA can encourage local governments to adopt regulations and land use plans that would help protect significant natural resources, but NCTA lacks any enforcement authority to ensure their adoption or adherence. Mitigation for direct impacts to jurisdictional resources (e.g., wetlands, ponds, streams) associated with the Preferred Alternative are discussed in the <i>Conceptual Mitigation Plan</i> , which includes discussion of both on and off-site mitigation.
5	Floodplains and Floodways	Negative impacts to terrestrial resources and wildlife are another significant concern, as the road construction and additional development will reduce wildlife habitat and increase habitat fragmentation in the project area. Collisions with wildlife are a serious safety concern for the traveling public, as well. Where significant floodplain fills are proposed, we recommend installing floodplain culverts in the road fill to provide wildlife crossings, reduce flooding and flood damage, restore some hydrological functions of the floodplain, and reduce flood velocities at the stream crossings. We commend NCTA for committing to coordinating with NCWRC, U.S. Fish and Wildlife Service (USFWS), and US Environmental Protection Agency (USEPA) on the feasibility and design of a wildlife passage at stream S156 and for agreeing to provide several bridges at crossings that were not required to convey floodwaters in order to minimize stream and wetland impacts, which will also enhance wildlife passage.	The indirect and cumulative effects of the project to habitat fragmentation were addressed in the indirect and cumulative effects qualitative analysis summarized in Chapter 7 of the Draft EIS. The Preferred Alternative (DSA 9), along with DSAs 9, 22, and 76 were estimated to have lesser impacts on habitat fragmentation than other DSAs. As stated on page 6-18 of the Draft EIS, and in the list of Special Project Commitments, the NCTA will coordinate with the NCWRC, USFWS, and USEPA during final design on the feasibility and design of a wildlife passage at Stream S156, and on designing bridge crossings to be wildlife friendly when feasible. Habitat fragmentation was further evaluated in the quantitative indirect and cumulative effects analysis conducted for the Preferred Alternative and summarized in Section 2.5.5 of the Final EIS.

Appendix B1 – Agency Comments

Table B1-5: North Carolina Wildlife Resources Commission (NCWRC)

Document: a005 letter dated July 7, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
6	Protected Species and Wildlife	Bald eagles (<i>Haliaeetus leucocephalus</i>), which have been removed from the Endangered Species list, but are still protected under the Bald and Golden Eagle Protection Act, occur around Lake Wylie. Protective measures should be provided. We disagree with the statement in the North Carolina Endangered Species Act paragraph in Section 6.5.1.2: that indicated state protection of state-listed species does not apply to transportation projects. We believe it is NCDOT's and NCTA's responsibility as state agencies to protect state-listed species in the construction of transportation facilities throughout the state and we request their assistance in protecting these animals. We see nothing in the Article (NCGS Chapter 113, Article 25) that would exempt transportation projects from the Act.	As stated in Section 6.5.4.1 of the Draft EIS, continued coordination with USFWS is recommended to ensure the provisions of the Bald and Golden Eagle Protection Act are met. The statement in Section 6.5.1.2 regarding the North Carolina Endangered Species Act states: "The state protection regulates the taking, collection, or sale of state-listed species, but does not apply to the management of lands for agriculture, forestry, or development (including transportation projects)". This language came from NCGS §113-332, which states that ..."nothing in this Article shall be construed to limit the rights of a landowner in the management of his lands for agriculture, forestry, development or any other lawful purpose without his consent." The NCTA will work with the NC WRC to protect state-listed species where feasible and practicable. Direct impacts to wildlife species will be minimized through the use of bridge crossings, development of Sediment and Erosion Control plans and Best Management Practices.
7	Indirect and Cumulative Effects	Indirect and cumulative impacts are a major concern and have the potential to be even more significant than the direct impacts. According to the DEIS, Gaston County has a high potential for accelerated growth and indirect effects to notable features as a result of the project and Mecklenburg County has a moderate potential. Both counties have a moderate potential to experience cumulative effects related to land use changes. The rural nature of the project area is likely to be lost without additional significant measures in place to manage growth. Urban and suburban sprawl are occurring in portions of the project vicinity. While some stormwater management controls exist to provide some protection of water quality, measures such as placing limits on impervious surfaces and preserving riparian buffers to streams and wetlands are lacking. Numerous studies have shown that when 10--15% of a watershed is converted to impervious surfaces, there is a serious decline in the health of receiving waters (Schueler 1994) and the quality of fish habitat and wetlands are negatively impacted (Booth 1991, Taylor 1993). Measures to mitigate secondary and cumulative impacts can be found in the Guidance Memorandum to Address and Mitigate Secondary and Cumulative Impacts to Aquatic and Terrestrial Wildlife Resources and Water Quality (NCWRC 2002). We also strongly encourage the use of Low Impact Development (LID) practices. Information on these measures can be found at www.lowimpactdevelopment.org , http://www.epa.gov/owow/noslid/natl.pdf and http://www.stormwatercenter.net .	A quantitative indirect and cumulative effects analysis was prepared for the Preferred Alternative (DSA 9) and summarized in Section 2.5.5 of the Final EIS. The NC Wildlife Resources Commission participated in the scoping of this quantitative study.



North Carolina Department of Environment and Natural Resources
Division of Parks and Recreation

Beverly Eaves Perdue, Governor

Dee Freeman, Secretary

Lewis Ledford, Director

June 23, 2009



MEMORANDUM

TO: Melba McGee, Environmental Coordinator
Office of Legislative and Intergovernmental Affairs

FROM: Amin Davis, Environmental Review Coordinator *AD*
Division of Parks and Recreation

SUBJECT: Draft Environmental Impact Statement – Gaston East-West Connector (STIP U-3321)

REFERENCE: Project No. 09-0322

Dear Melba,

The North Carolina Division of Parks and Recreation (DPR) has reviewed the above-referenced project information provided by your office. DPR understands that the Recommended Alternative for this project has been identified as DSA 9, which is comprised of segments H2A-H3-J4a-J4b-J2c-J2d-JX4-J1e-J1f-K1A-K3A-K3B-K3C as shown in DEIS Figure 2-8a-b.

DPR supports alignment DSA 9 as the Recommended Alternative for this project to avoid potential impacts to Crowders Mountain State Park, which is owned by the State of North Carolina and managed by DPR. Portions of the Park are classified as "Dedicated Natural Areas" (DNA's). These areas are set aside for the permanent conservation of a natural area, with the primary purpose of the property being the conservation of natural habitat. Potential impacts to DNA's would require further consultation with DPR, the NC Natural Heritage Program, and may require Council of State approval.

Please let me know if I can provide further information. DPR appreciates the opportunity to comment on this proposed project. If we can be of further assistance, please do not hesitate to contact me at 919-715-7584 or amin.davis@ncdenr.gov.

CC via email: Brian Strong, DPR
Katie Armstrong, NHP
Larry Hyde, DPR
Marshall Ellis, DPR

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DEPARTMENT OF ENVIRONMENT AND
NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

Inter-Agency Project Review Response

Project Number 09-0322
County Mecklenburg/ Gaston

Project Name	USDOT/NC DOT/Federal Hwy Administration/NC Turnpike Authority/US Army Corps of Engineers	Type of Project	Draft Environ. Impact Statement - Gaston East-West Corridor Study; Improvements to transport mobility; Ref. 03-0304.
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Comments provided by:

- Regional Program Person
- Regional Supervisor for Public Water Supply Section
- Central Office program person

Name Britt Setzer-Mooresville RO Date 05/14/2009

Telephone number: 704-235-2127

Program within Division of Environmental Health:

- Public Water Supply
- Other, Name of Program: _____

Response (check all applicable):

- No objection to project as proposed
- No comment
- Insufficient information to complete review
- Comments attached
- See comments below



MAY 21 2009

RECEIVED
Mooresville Regional Office

MAY 15 2009

NCDENR
Public Water Supply

See memo

Return to:
Public Water Supply Section
Environmental Review Coordinator
for the
Division of Environmental Health

Appendix B1 – Agency Comments

Table B1-6: NCDENR Division of Parks and Recreation

Document: a006 letter dated June 23, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Alternatives Considered	DPR supports alignment DSA 9 as the Recommended Alternative for this project to avoid potential impacts to Crowders Mountain State Park, which is owned by the State of North Carolina and managed by DPR. Portions of the Park are classified as "Dedicated Natural Areas" (DNA's). These areas are set aside for the permanent conservation of a natural area, with the primary purpose of the property being the conservation of natural habitat. Potential impacts to DNA's would require further consultation with DPR, the NC Natural Heritage Program, and may require Council of State approval.	DSA 9 has been selected as the Preferred Alternative (Section 2.2) and the Least Environmentally Damaging Practicable Alternative (LEDPA) (Section 3.2.3). The Preferred Alternative would not directly impact Crowders Mountain State Park.

a007

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH



Project Number 09-0322
County Mecklenburg/ Gaston

Inter-Agency Project Review Response

Project Name	<u>USDOT/NCDOT/Federal Hwy Administration/NC Turnpike Authority/US Army Corps of Engineers</u>	Type of Project	<u>Draft Environ. Impact Statement - Gaston East-West Corridor Study: Improvements to transport. mobility; Ref. 03-0304.</u>
--------------	--	-----------------	--

- The applicant should be advised that plans and specifications for all water system improvements must be approved by the Division of Environmental Health prior to the award of a contract or the initiation of construction (as required by 15A NCAC 18C .0300et. seq.). For information, contact the Public Water Supply Section, (919) 733-2321.
- This project will be classified as a non-community public water supply and must comply with state and federal drinking water monitoring requirements. For more information the applicant should contact the Public Water Supply Section, (919) 733-2321. *MAY 15 2009*
- If this project is constructed as proposed, we will recommend closure of _____ feet of adjacent waters to the harvest of shellfish. For information regarding the shellfish sanitation program, the applicant should contact the Shellfish Sanitation Section at (252) 726-6827.
- The soil disposal area(s) proposed for this project may produce a mosquito breeding problem. For information concerning appropriate mosquito control measures, the applicant should contact the Public Health Pest Management Section at (919) 733-6407.
- The applicant should be advised that prior to the removal or demolition of dilapidated structures, an extensive rodent control program may be necessary in order to prevent the migration of the rodents to adjacent areas. For information concerning rodent control, contact the local health department or the Public Health Pest Management Section at (919) 733-6407.
- The applicant should be advised to contact the local health department regarding their requirements for septic tank installations (as required under 15A NCAC 18A. 1900 et. seq.). For information concerning septic tank and other on-site waste disposal methods, contact the On-Site Wastewater Section at (919) 733-2895.
- The applicant should be advised to contact the local health department regarding the sanitary facilities required for this project.
- If existing water lines will be relocated during the construction, plans for the water line relocation must be submitted to the Division of Environmental Health, Public Water Supply Section, Technical Services Branch, 1634 Mail Service Center, Raleigh, North Carolina 27699-1634, (919) 733-2321.
- For Regional and Central Office comments, see the reverse side of this form.

1

<u>Jim McRight</u>	<u>PWSS</u>	<u>05/14/2009</u>
Reviewer	Section/Branch	Date

Appendix B1 – Agency Comments

Table B1-7: NCDENR Division of Environmental Health – Public Water Supply Section

Document: a007 letter dated May 14, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Utilities	If existing water lines will be relocated during the construction, plans for the water line relocation must be submitted to the Division of Environmental Health, Public Water Supply Section, Technical Services Branch, 1634 Mail Service Center, Raleigh, North Carolina 27699-1634, (919) 733-2321.	Comment acknowledged.



North Carolina Department of Environment and Natural Resources
Division of Environmental Health

Beverly Eaves Perdue
Governor

Terry L. Pierce
Director

a008

Dee Freeman
Secretary



Memorandum

Date: May 20, 2009

To: Jim McRight, Environmental Review Coordinator
Public Water Supply Section
Raleigh Central Office

From: Britt Setzer, Regional Supervisor
Public Water Supply Section
Mooresville Regional Office

Subject: Project Review Response
Draft EIS – Gaston East-West Corridor Study
Project Number 09-0322, Mecklenburg/Gaston County

A review of these documents was conducted on May 19, 2009. There are many public water supply (PWS) issues that need to be addressed with this project. Listed below are issues related to the PWS Section.

1. The proposed project area will dissect portions of Gaston County that are served predominately by community water supply wells. There are setbacks associated with these wells that must be maintained. Roads and associated right-of-way can't encroach within 100 feet of a public water supply well. There are also NTNC and TNC wells located within the project area that may have encroachment limitations also. A thorough evaluation of the area needs to be conducted by Turnpike Authority to determine any potential impacts to the PWS well systems that may be located in these proposed construction corridors.

2. There are many water lines located within this area also. Existing water lines that require relocation will require approval from the PWS Section prior to relocation.

If you have any questions, please call me at 704-235-2127.

Public Water Supply Section – Jessica G. Miles, Chief
Mooresville Regional Office
610 East Center Avenue, Suite 301, Mooresville, North Carolina 28115
Phone: 704-663-1699 | FAX: 704-663-3772 | Internet: ncdinkingwater.state.nc.us
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State of North Carolina
Department of Environment and Natural Resources

Reviewing Office: *Memo - Elle*
Project Number: *09-0322* Due Date: *6/8/09*

INTERGOVERNMENTAL REVIEW - PROJECT COMMENTS

After review of this project it has been determined that the ENR permit(s) and/or approvals indicated may need to be obtained in order for this project to comply with North Carolina Law. Questions regarding these permits should be addressed to the Regional Office indicated on the reverse of the form. All applications, information and guidelines relative to these plans and permits are available from the same Regional Office.

PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	Normal Process Time (statutory time limit)
<input type="checkbox"/> Permit to construct & operate wastewater treatment facilities, sewer system extensions & sewer systems not discharging into state surface waters.	Application 90 days before begin construction or award of construction contracts. On-site inspection. Post-application technical conference usual.	30 days (90 days)
<input type="checkbox"/> NPDES - permit to discharge into surface water and/or permit to operate and construct wastewater facilities discharging into state surface waters.	Application 180 days before begin activity. On-site inspection. Pre-application conference usual. Additionally, obtain permit to construct wastewater treatment facility-granted after NPDES. Reply time, 30 days after receipt of plans or issue of NPDES permit-whichever is later.	90-120 days (N/A)
<input type="checkbox"/> Water Use Permit	Pre-application technical conference usually necessary	30 days (N/A)
<input type="checkbox"/> Well Construction Permit	Complete application must be received and permit issued prior to the installation of a well.	7 days (15 days)
<input type="checkbox"/> Dredge and Fill Permit	Application copy must be served on each adjacent riparian property owner. On-site inspection. Pre-application conference usual. Filling may require Easement to Fill from N.C. Department of Administration and Federal Dredge and Fill Permit.	55 days (90 days)
<input type="checkbox"/> Permit to construct & operate Air Pollution Abatement facilities and/or Emission Sources as per 15 A NCAC (2Q.0100 thru 2Q.0300)	Application must be submitted and permit received prior to construction and operation of the source. If a permit is required in an area without local zoning, then there are additional requirements and timelines (2Q.0113).	90 days
<input type="checkbox"/> Permit to construct & operate Transportation Facility as per 15 A NCAC (2D.0800, 2Q.0601)	Application must be submitted at least 90 days prior to construction or modification of the source.	90 days
<input type="checkbox"/> Any open burning associated with subject proposal must be in compliance with 15 A NCAC 2D.1900	N/A	60 days (90 days)
<input type="checkbox"/> Demolition or renovations of structures containing asbestos material must be in compliance with 15 A NCAC 20.1110 (a) (1) which requires notification and removal prior to demolition. Contact Asbestos Control Group 919-707-9950.		
<input type="checkbox"/> Complex Source Permit required under 15 A NCAC 2D.0800		
<input checked="" type="checkbox"/> The Sedimentation Pollution Control Act of 1973 must be properly addressed for any land disturbing activity. An erosion & sedimentation control plan will be required if one or more acres to be disturbed. Plan filed with proper Regional Office (Land Quality Section) At least 30 days before beginning activity. A fee of \$65 for the first acre or any part of an acre. An express review option is available with additional fees.		20 days (30 days)
<input checked="" type="checkbox"/> Sedimentation and erosion control must be addressed in accordance with NCDOT's approved program. Particular attention should be given to design and installation of appropriate perimeter sediment trapping devices as well as stable stormwater conveyances and outlets.		(30 days)
<input type="checkbox"/> Mining Permit	On-site inspection usual. Surety bond filed with ENR Bond amount varies with type mine and number of acres of affected land. Any acre mined greater than one acre must be permitted. The appropriate bond must be received before the permit can be issued.	30 days (60 days)
<input type="checkbox"/> North Carolina Burning permit	On-site inspection by N.C. Division Forest Resources if permit exceeds 4 days	1 day (N/A)
<input type="checkbox"/> Special Ground Clearance Burning Permit - 22 counties in coastal N.C. with organic soils	On-site inspection by N.C. Division Forest Resources required "if more than five acres of ground clearing activities are involved. Inspections should be requested at least ten days before actual burn is planned."	1 day (N/A)
<input type="checkbox"/> Oil Refining Facilities	N/A	90-120 days (N/A)
<input type="checkbox"/> Dam Safety Permit	If permit required, application 60 days before begin construction. Applicant must hire N.C. qualified engineer to prepare plans, inspect construction, certify construction is according to ENR approved plans. May also require permit under mosquito control program. And a 404 permit from Corps of Engineers. An inspection of site is necessary to verify Hazard Classification. A minimum fee of \$200.00 must accompany the application. An additional processing fee based on a percentage of the total project cost will be required.	30 days (60 days)

Appendix B1 – Agency Comments

Table B1-8: NCDENR Division of Environmental Health - Public Water Supply Section - Mooresville Office

Document: a008 letter dated May 20, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Utilities	The proposed project area will dissect portions of Gaston County that are served predominately by community water supply wells. There are setbacks associated with these wells that must be maintained. Roads and associated right-of-way can't encroach within 100 feet of a public water supply well. There are also NTNC and TNC wells located within the project area that may have encroachment limitations. A thorough evaluation of the area needs to be conducted by Turnpike Authority to determine any potential impacts to the PWS well systems that may be located in these proposed construction corridors.	<p>Comment acknowledged. As discussed in Section 4.4.2 of the Draft EIS, wells within the Preferred Alternative's right of way will be surveyed prior to project construction. NCTA will purchase these wells and cap and abandon them in accordance with State standards (15A NCAC 2C).</p> <p>In accordance with standard procedure, property owners will be compensated in order to reinstate a water supply to their property, or if a water supply cannot be replaced for a parcel which currently has a water supply, the parcel would be acquired.</p>
2	Utilities	There are many water lines located within this area also. Existing water lines that require relocation will require approval from the PWS Section prior to relocation.	<p>Comment acknowledged. As discussed in Section 4.4.2 of the Draft EIS, all DSAs would cross water lines, but water service is not expected to be disrupted. Prior to project construction, NCTA will coordinate any water line relocation or reconfiguration with the appropriate municipality or county and NCDENR.</p>

a009-a011

PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	Normal Process Time (statutory time limit)
<input type="checkbox"/> Permit to drill exploratory oil or gas well	File surety bond of \$5,000 with ENR running to State of NC conditional that any well opened by drill operator shall, upon abandonment, be plugged according to ENR rules and regulations.	10 days N/A
<input type="checkbox"/> Geophysical Exploration Permit	Application filed with ENR at least 10 days prior to issue of permit. Application by letter. No standard application form.	10 days N/A
<input type="checkbox"/> State Lakes Construction Permit	Application fees based on structure size is charged. Must include descriptions & drawings of structure & proof of ownership of riparian property.	15-20 days N/A
<input type="checkbox"/> 401 Water Quality Certification	N/A	60 days (130 days)
<input type="checkbox"/> CAMA Permit for MAJOR development	\$250.00 fee must accompany application	55 days (150 days)
<input type="checkbox"/> CAMA Permit for MINOR development	\$50.00 fee must accompany application	22 days (25 days)
<input type="checkbox"/> Several geodetic monuments are located in or near the project area. If any monument needs to be moved or destroyed, please notify: N.C. Geodetic Survey, Box 27687 Raleigh, NC 27611		
<input type="checkbox"/> Abandonment of any wells, if required must be in accordance with Title 15A, Subchapter 2C.0100.		
<input type="checkbox"/> Notification of the proper regional office is requested if "orphan" underground storage tanks (USTS) are discovered during any excavation operation.		
<input type="checkbox"/> Compliance with 15A NCAC 2H 1000 (Coastal Stormwater Rules) is required.		45 days (N/A)
<input type="checkbox"/> Tar Pamilco or Neuse Riparian Buffer Rules required		
* Other comments (attach additional pages as necessary, being certain to cite comment authority) a009 LO - EES Call Point required July 3. 5/15/09 a010 APS - May need to abandon water supply wells impacted by project. APP 5.18.09 APP a011 DTR Open burning that meets regulation is allowed in Gaston County. Air permit for temporary concrete plant may be needed. Run for 5/22/09		



REGIONAL OFFICES

Questions regarding these permits should be addressed to the Regional Office marked below.

- Asheville Regional Office
2090 US Highway 70
Swannanoa, NC 28778
(828) 296-4500
- Mooresville Regional Office
610 East Center Avenue, Suite 301
Mooresville, NC 28115
(704) 663-1699
- Wilmington Regional Office
127 Cardinal Drive Extension
Wilmington, NC 28405
(910) 796-7215
- Fayetteville Regional Office
225 North Green Street, Suite 714
Fayetteville, NC 28301-5043
(910) 433-3300
- Raleigh Regional Office
3800 Barrett Drive, Suite 101
Raleigh, NC 27609
(919) 791-4200
- Winston-Salem Regional Office
585 Woughtown Street
Winston-Salem, NC 27107
(336) 771-5000
- Washington Regional Office
943 Washington Square Mall
Washington, NC 27889
(252) 946-6481

**NORTH CAROLINA STATE CLEARINGHOUSE
DEPARTMENT OF ADMINISTRATION
INTERGOVERNMENTAL REVIEW**

COUNTY: GASTON
MECKLENBURG

F02: HIGHWAYS AND ROADS

STATE NUMBER: 09-E-4220-0322
DATE RECEIVED: 05/11/2009
AGENCY RESPONSE: 06/08/2009
REVIEW CLOSED: 06/11/2009

MS RENEE GLEDHILL-EARLEY
CLEARINGHOUSE COORDINATOR
DEPT OF CULTURAL RESOURCES
STATE HISTORIC PRESERVATION OFFICE
MSC 4617 - ARCHIVES BUILDING
RALEIGH NC



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CENTRALINA COG
DENR LEGISLATIVE AFFAIRS
DEPT OF AGRICULTURE
DEPT OF CULTURAL RESOURCES
DEPT OF TRANSPORTATION

PROJECT INFORMATION

APPLICANT: N.C. Turnpike Authority
TYPE: National Environmental Policy Act
Draft Environmental Impact Statement

DESC: Gaston East-West Corridor Study: Improvements to east-west transportation mobility in the area around Gastonia and other towns in southern Gaston and western Mecklenburg counties; TIP U-3321

CROSS-REFERENCE NUMBER: 03-E-4220-0304

The attached project has been submitted to the N. C. State Clearinghouse for intergovernmental review. Please review and submit your response by the above indicated date to 1301 Mail Service Center, Raleigh NC 27699-1301.

If additional review time is needed, please contact this office at (919)807-2425.

AS A RESULT OF THIS REVIEW THE FOLLOWING IS SUBMITTED: NO COMMENT COMMENTS ATTACHED

SIGNED BY: Renee Gledhill-Earley

DATE: 6-11-09

ER 02-9723
Draft Hx attached -
A- JM 5/22/09
S - NC findings reflect files
6/11/09

Due 5/27/09

MAY 14 2009

Appendix B1 – Agency Comments

Table B1-9: NCDENR Division of Environmental Health -Land Quality Section

Document: a009 letter dated July 13, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Water Resources	The Sedimentation Pollution Control Act of 1973 must be properly addressed for any land disturbing activity. An erosion & sedimentation control plan will be required if one or more acres to be disturbed. Plan filed with proper Regional Office (Land Quality Section) At least 30 days before beginning activity. A fee of \$65 for the first acre or any part of an acre. An express review option is available with additional fees. Sedimentation and erosion control must be addressed in accordance with NCDOT's approved program. Particular attention should be given to design and installation of appropriate perimeter sediment trapping devices as well as stable stormwater conveyances and outlets. Erosion and Sedimentation Control Permit required.	NCTA and FHWA acknowledge that an Erosion and Sedimentation Control Plan will be required prior to any land disturbing activities.

Appendix B1 – Agency Comments

Table B1-10: NCDENR Division of Environmental Health – Aquifer Protection Section

Document: a010 letter dated July 13, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Utilities	May need to abandon water supply wells impacted by project.	Comment acknowledged. As discussed in Section 4.4.2 of the Draft EIS, wells within the Preferred Alternative's right of way will be surveyed prior to project construction. NCTA will purchase these wells and cap and abandon them in accordance with State standards (15A NCAC 2C).

Appendix B1 – Agency Comments

Table B1-11: NCDENR Division of Environmental Health - Division of Air Quality

Document: a011 letter dated July 13, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Air Quality	Open burning that meets regulations is allowed in Gaston County. Air permit for temporary concrete plants may be needed.	The NCTA and its construction contractors will comply with all applicable regulations and ordinances related to open burning and fugitive dust control in effect at the time of construction.

Appendix B1 – Agency Comments



a012

North Carolina Department of Cultural Resources
State Historic Preservation Office

Peter B. Sandbeck, Administrator

Beverly Eaves Perdue, Governor
Linda A. Carlisle, Secretary
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History
Division of Historical Resources
David Brook, Director

June 19, 2009

MEMORANDUM

TO: Steven DeWitt
Turnpike Authority
1578 Mail Service Center

FROM: Peter Sandbeck *RS for Peter Sandbeck*

SUBJECT: Gaston East-West Connector, Administrative Action Draft Environmental Impact Statement, Gaston County, ER 02-9723

Thank you for the information that you provided us concerning the above project.

1 [We are in agreement with the statements contained within the Draft Environmental Impact Statement pertaining to archaeological resources. Notably, that once the preferred alternative is chosen, a comprehensive archaeological investigation will be undertaken prior to any earth moving activities. As always, our office will be happy to assist your staff in preparing the archaeological survey methodology should you require our assistance.

2 [The Determination of Eligibility and Findings of Effects for historic architectural resources match those in our files.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for compliance with Section 106 codified at 36CFR Part 800.

Thank you for your cooperation and considerations. If you have any questions concerning the above comments, please contact Renee Gledhill-Earley, Environmental Review Coordinator at 919.807-6579. In all future communications concerning this project, please cite the above referenced tracking number.

cc: Matt Wilkerson, NCDOT
Mary Pope Furr, NCDOT
ACOE, Asheville Regulatory Field Office
State Clearinghouse

NORTH CAROLINA STATE CLEARINGHOUSE
DEPARTMENT OF ADMINISTRATION
INTERGOVERNMENTAL REVIEW

COUNTY: GASTON
MECKLENBURG

F02: HIGHWAYS AND ROADS

STATE NUMBER: 09-E-4220-0322

DATE RECEIVED: 05/11/2009

AGENCY RESPONSE: 06/08/2009

REVIEW CLOSED: 06/11/2009

MS HOLLY GILROY
CLEARINGHOUSE COORDINATOR
DEPT OF AGRICULTURE
1001 MSC - AGRICULTURE BLDG
RALEIGH NC

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CENTRALINA COG
DNR LEGISLATIVE AFFAIRS
DEPT OF AGRICULTURE
DEPT OF CULTURAL RESOURCES
DEPT OF TRANSPORTATION

PROJECT INFORMATION

APPLICANT: N.C. Turnpike Authority
TYPE: National Environmental Policy Act
Draft Environmental Impact Statement

DESC: Gaston East-West Corridor Study: Improvements to east-west transportation mobility in the area around Gastonia and other towns in southern Gaston and western Mecklenburg counties; TIP U-3321

CROSS-REFERENCE NUMBER: 03-E-4220-0304

The attached project has been submitted to the N. C. State Clearinghouse for intergovernmental review. Please review and submit your response by the above indicated date to 1301 Mail Service Center, Raleigh NC 27699-1301.

If additional review time is needed, please contact this office at (919)807-2425.

AS A RESULT OF THIS REVIEW THE FOLLOWING IS SUBMITTED: NO COMMENT COMMENTS ATTACHED

SIGNED BY: *Holly Gilroy*

DATE: *6-4-09*



Table B1-12: North Carolina Department of Cultural Resources/State Historic Preservation Office

Document: a012 letter dated June 16, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Cultural Resources	We are in agreement with the statements contained within the Draft Environmental Impact Statement pertaining to archaeological resources. Notably, that once the preferred alternative is chosen, a comprehensive archaeological investigation will be undertaken prior to any earth moving activities.	An intensive survey for archaeological resources was conducted for the Preferred Alternative (DSA 9). The results are reported in Section 2.5.3.2 of the Final EIS.
2	Cultural Resources	The Determination of Eligibility and Findings of Effects for historic architectural resources match those in our files. The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for compliance with Section 106 codified at 36CFR Part 800.	Comment acknowledged. Appendix A-2 of the Draft EIS contains correspondence with the State Historic Preservation Office regarding Determination of Eligibility and Findings of Effects.



Steven W. Troxler
Commissioner

North Carolina Department of Agriculture
and Consumer Services
Agricultural Services

Maximilian Merrill
Environmental Programs



Ms. Valerie McMillan
State Clearinghouse
N.C. Department of Administration
1301 Mail Service Center
Raleigh, North Carolina 27699-1301

State #: 09-E-4220-0322

RE: Gaston- East West Corridor Study: Improvements to east- west transportation mobility in the area of southern Gaston County.

Dear Ms McMillan

1 The North Carolina Turnpike Authority has created another thorough Environmental Impact Statement. This DRAFT EIS adequately states the effects each *Alternative* would have on the immediate and adjacent farmland of the study area. However there are a few concerns with this study and project.

2 The farmland analysis may be more appropriately located in the section labeled *Natural Resources* rather than *Physical Environment*. Farm and forestland is a natural resource and cannot be mitigated for, nor replaced once converted to other uses. This highlights my second point that farms and farm businesses cannot be replaced nor relocated. This EIS states that all DSAs would require the relocation of farms and convert farms currently in the Voluntary Agricultural District program. Many agencies and organizations have focused considerable resources and man power establishing VADs in each county in order to locate, map and support landowners who want to keep their lands in agriculture and protect their resource for future generations and economy. Transportation authorities should take extreme efforts not to encourage new projects in the areas of VADs and help combat incompatible land uses rising up around our agricultural resources.

4 As stated earlier, once a farm is converted it is lost forever. The amounts of agricultural products produced from those farms are no longer produced and no longer contribute to the sustainable economy of agriculture. It is estimated that with each 40 acres lost one farm job is lost forever. The most current agricultural census data shows that between 2002 and 2006 NC lost about 600,000 acres of farmland. Much of this was due to the direct, indirect, and cumulative effects of road transportation projects. We need to evaluate *Alternatives* on the basis of all the factors but it may now be important to give the loss of farm and forestland acres more weight in these decisions. Each *Alternative*, other than the No Build or Update Alternative, converts over 1,900 acres of farmland (most part of the VAD program) directly and may indirectly convert farmland many miles outside the corridors which would be thousands more acres.

5 The current Farmland Impact Analysis shows scores of 115-122, which is below the threshold to shift any of the *Alternatives*. Since this project will have such severe affects on farmland how these FIA numbers be so low? It is understood that federal regulations require the Farmland Impact Analysis, however we need to look at our farmland and farm business losses with more scrutiny than this subjective analysis and weigh farm and forestland loss more heavily in project determination..

Based on the secondary, cumulative, and direct impacts, this project will have adverse impacts on the agricultural economy and resources of the study area.

Gratefully

Maximilian Merrill

E-mail: maximilian.merrill@ncmail.net
1001 Mail Service Center, Raleigh, North Carolina, 27699-1001 (919) 733-7125 • Fax (919) 716-0105
TTY: 1-800-735-2982 Voice: 1-877-735-8200
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Appendix B1 – Agency Comments

Table B1-13: North Carolina Department of Agriculture and Consumer Services/Agricultural Services

Document: a013 letter dated June 8, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Farmland	The North Carolina Turnpike Authority has created another thorough Environmental Impact Statement. This DRAFT EIS adequately states the effects each Alternative would have on the immediate and adjacent farmland of the study area.	Comment acknowledged.
2	Farmland	The farmland analysis may be more appropriately located in the section labeled <i>Natural Resources</i> rather than <i>Physical Environment</i> . Farm and forestland is a natural resource and cannot be mitigated for, nor replaced once converted to other uses. This highlights my second point that farms and farm businesses cannot be replaced nor relocated.	Since farming is a man-made land use consisting of a conversion of natural land to agricultural operations, the discussion about potential farming impacts is appropriately located in the Physical Environment chapter of the Draft EIS. Furthermore, NCDOT EIS Guidance specifies farmland discussions should be located in the Physical Environment section of the EIS (NCDOT Web site: www.ncdot.org/doh/preconstruct/pe/EIS_Guidance.html). The Preferred Alternative would impact one farm, White Rock Horse Farm, east of Rufus Ratchford Road. While farmland converted to transportation uses typically is not replaced, the business operations of the farm can be relocated. In accordance with federal and state law, displaced farms are eligible to receive the fair market value of the land as well as any structures that would be taken by the project. In addition, farm owners are eligible to receive reimbursement for moving and relocation expenses. In some cases farm owners may be eligible to receive funding associated with the reestablishment of their farm.
3	Farmland	This EIS states that all DSAs would require the relocation of farms and convert farms currently in the Voluntary Agricultural District program. Many agencies and organizations have focused considerable resources and man power establishing VADs in each county in order to locate, map and support landowners who want to keep their lands in agriculture and protect their resource for future generations and economy. Transportation authorities should take extreme efforts not to encourage new projects in the areas of VADs and help combat incompatible land uses rising up around our agricultural resources.	Gaston County has a Voluntary Agricultural District (VAD) Ordinance. VADs in the project area are shown in Figure 4-3 and discussed in Sections 4.3.3.3 and 4.3.4.3 of the Draft EIS. During preliminary engineering design for the Detailed Study Alternatives, impacts to VADs were avoided and minimized to the extent possible in consideration with impacts to other natural, physical, and human resources. Property owners who enroll their farmland in the Gaston County VAD program have the right to public hearings in their communities if there are ever land condemnation proceedings for lands within the districts. The NCTA will work with Gaston County to conduct these public hearings at the appropriate time in accordance with the Gaston County VAD ordinance. Also, see response to Comment 2 in this same letter.

Appendix B1 – Agency Comments

Table B1-13: North Carolina Department of Agriculture and Consumer Services/Agricultural Services

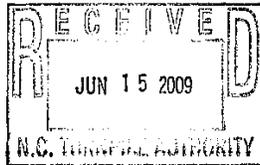
Document: a013 letter dated June 8, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
4	Farmland	As stated earlier, once a farm is converted it is lost forever. The amounts of agricultural products produced from those farms are no longer produced and no longer contribute to the sustainable economy of agriculture. It is estimated that with each 40 acres lost one farm job is lost forever. The most current agricultural census data shows that between 2002 and 2006 NC lost about 600,000 acres of farmland. Much of this was due to the direct, indirect, and cumulative effects of road transportation projects. We need to evaluate Alternatives on the basis of all the factors but it may now be important to give the loss of farm and forestland acres more weight in these decisions. Each Alternative, other than the No Build or Update Alternative, converts over 1,900 acres of farmland (most part of the VAD program) directly and may indirectly convert farmland many miles outside the corridors which would be thousands more acres.	Farmland was considered in the evaluation of all the DSA's, and in the selection of the Preferred Alternative. DSA 9 is one of the alternatives that would impact the least acreage of land in Voluntary Agricultural Districts, 49.2 acres, as listed in Table 4-11 of the Draft EIS. DSA 9 also is one of the DSAs with the fewest impacts to agriculturally maintained lands. As listed in Table 6-4 of the Draft EIS, DSA 9 would directly impact 177 acres of agricultural land (including the VADs), which represents 10.1 percent of the land directly impacted by DSA 9 (1,794 acres). The refined preliminary design for the Preferred Alternative reduced impacts to agricultural lands to 146 acres. In comparing the DSAs for indirect effects on farmland, DSA 9 is one of the DSAs with the lowest potential (Table S-2 of the Draft EIS) since it is generally closer to existing developed areas. It should also be noted that DSA 9 is consistent with Gaston County's land use plan.
5	Farmland	The current Farmland Impact Analysis shows scores of 115-122, which is below the threshold to shift any of the Alternatives. Since this project will have such severe affects on farmland how these FIA numbers be so low? It is understood that federal regulations require the Farmland Impact Analysis, however we need to look at our farmland and farm business losses with more scrutiny than this subjective analysis and weigh farm and forestland loss more heavily in project determination . Based on the secondary, cumulative, and direct impacts, this project will have adverse impacts on the agricultural economy and resources of the study area.	The Farmland Conversion Impact Rating forms are discussed in Section 4.3.4.2 of the Draft EIS, and were completed in compliance with the implementing regulations (7 CFR Part 658) of the Farmland Protection Policy Act. These forms have two parts. The Corridor Assessment portion of the form, which is completed by the FHWA, was completed in accordance with <i>Guidelines for Implementing the Final Rule of the Farmland Protection Policy Act for Highway Projects</i> (FHWA, May 1989). The completed forms are included in Appendix I of the Draft EIS. Also, see response to Comment 4 in this letter.



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Asheville Field Office
160 Zillicoa Street
Asheville, North Carolina 28801
June 12, 2009



Ms. Jennifer H. Harris, P.E.
Staff Engineer
North Carolina Turnpike Authority
1578 Mail Service Center
Raleigh, North Carolina 27699-1578

Dear Ms. Harris:

Subject: Comments on the Draft Environmental Impact Statement for the Proposed Gaston East-West Connector, Gaston and Mecklenburg Counties, North Carolina (TIP No. U-3321)

This letter responds to a request for our review and comments on the Draft Environmental Impact Statement (DEIS) for the subject project. Our comments are provided in accordance with the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661-667e), and section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543).

The North Carolina Turnpike Authority (NCTA) proposes to provide a new location freeway from I-85 west of Gastonia to I-485 near the Charlotte-Douglas International Airport. As part of the North Carolina Department of Transportation's (NCDOT) merger process, we participated as a merger team member and provided comments and recommendations to the NCDOT regarding the project through concurrence point (CP) 2--alternatives to be carried forward. We abstained from signing at CP 2. A copy of our abstention is included in the DEIS, Appendix A. Subsequently, the NCTA chose to follow the merger process for this project, and in 2008 we signed a combined CP 1, 2, and 2a form and have attended agency coordination meetings and provided comments and recommendations at those meetings.

The majority of our concerns for the environmental impacts of this project are the extent of impacts to streams and wetlands and the fragmentation of terrestrial habitat. The recommended alternative will impact a total of 9.3 miles of streams, including 7.4 miles of perennial streams and almost 2 miles of intermittent streams. Wetland impacts are estimated at 7.5 acres.

2 Conservatively, this project will require about 20 miles of stream and 15 acres of wetland compensatory mitigation. We are concerned that this amount of mitigation will not be available, particularly in this area. Every effort should be made to further avoid and minimize impacts to streams and wetlands and to provide on-site mitigation.

3 In addition to direct effects, the indirect and cumulative effects on streams and wetlands from this project and the development that it has the potential to induce will permanently alter the streams in the area and further degrade water quality and habitat. Although the municipalities in the study area are under the National Pollutant Discharge Elimination System's Phase II storm-water rules, these rules do not address the preservation of intact riparian buffers; limits on impervious surface amounts in a given watershed; or other factors critical to maintaining stable, properly functioning streams and aquatic habitat. Measures to mitigate secondary and cumulative impacts can be found in the North Carolina Wildlife Resources Commission's *Guidance Memorandum to Address and Mitigate Secondary and Cumulative Impacts to Aquatic and Terrestrial Wildlife Resources and Water Quality*. We strongly encourage the NCTA to work with local governments to adopt protective measures for streams and wetlands in the study area to reduce these impacts.

4 The fragmentation of terrestrial habitat is also a concern for this project. This new location freeway will bisect a number of farms and other working land and forests that provide habitat and movement corridors for wildlife and migratory birds. There is a brief discussion on page 6-18 regarding impacts to terrestrial wildlife, but there is no analysis specific to the alternatives proposed or the recommended alternative. This discussion also states that the NCTA will consider wildlife passage structures along the corridor, but there is no map to display where these structures may be located or in what habitats. Page 7-9 of the DEIS references a map showing the distribution of habitat in the study area and possible indirect and cumulative impacts to terrestrial wildlife, but this map is in another document that is not provided in the DEIS or its appendices. If large patches of habitat are being fragmented by the various alternatives, measures to avoid or minimize those impacts should be investigated, particularly if habitat or travel corridors for large mammals or migratory birds will be affected.

5 The only federally listed species known to occur in the project study area is the Schweinitz's sunflower (*Helianthus schweinitzii*). According to the DEIS, there is a population of this sunflower along the western side of Union New Hope Road, and the majority of the alternatives (including the recommended alternative) would have no impact on this population. The DEIS further states that four of the proposed alternatives (Alternatives 4, 22, 58, and 76) are near this population but would have no direct impacts. If one of these latter alternatives is chosen, further consultation will be required to determine whether this population will be impacted.

We appreciate the opportunity to provide these comments and will continue to participate in the planning process for this project. If you have questions about our comments, please contact

a014

Ms. Marella Buncick of our staff at 828/258-3939, Ext. 237. In any future correspondence concerning this project, please reference our Log Number 4-2-02-444.

Sincerely,



For
Brian P. Cole
Field Supervisor

Electronic copy to:

Ms. Marla J. Chambers, Western NCDOT Permit Coordinator, North Carolina Wildlife
Resources Commission, 12275 Swift Road, Oakboro, NC 28129

Mr. Chris Militscher, U.S. Environmental Protection Agency, 1313 Alderman Circle,
Raleigh, NC 27603

Ms. Polly Lespinasse, Mooresville Regional Office, North Carolina Division of Water Quality,
610 East Center Avenue, Suite 301, Mooresville, NC 28115

Regional Director, FWS, Southeast Regional Office, Atlanta, GA (ES, Attention: Mr. Richard
Warner)

Appendix B1 – Agency Comments

Table B1-14: United States Department of the Interior Fish and Wildlife Service/Asheville Field Office

Document: a014 letter dated June 12, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Comment Noted	As part of the North Carolina Department of Transportation's (NCDOT) merger process, we participated as a merger team member and provided comments and recommendations to the NCDOT regarding the project through concurrence point (CP) 2--alternatives to be carried forward. We abstained from signing at CP 2. A copy of our abstention is included in the DEIS, Appendix A. Subsequently, the NCTA chose to follow the merger process for this project, and in 2008 we signed a combined CP 1, 2, and 2a form and have attended agency coordination meetings and provided comments and recommendations at those meetings.	Comment acknowledged. The NCTA appreciates the participation of the USFWS and other environmental resource and regulatory agencies throughout the process. The USFWS also signed the Concurrence Point 3 form identifying DSA 9 as the Least Environmentally Damaging Practicable Alternative (LEDPA) and the Concurrence Point 4a form for avoidance and minimization of impacts to jurisdictional resources. These forms are included in the Final EIS Appendix G .
2	Water Resources	The majority of our concerns for the environmental impacts of this project are the extent of impacts to streams and wetlands and the fragmentation of terrestrial habitat. The recommended alternative will impact a total of 9.3 miles of streams, including 7.4 miles of perennial streams and almost 2 miles of intermittent streams. Wetland impacts are estimated at 7.5 acres. Conservatively, this project will require about 20 miles of stream and 15 acres of wetland compensatory mitigation. We are concerned that this amount of mitigation will not be available, particularly in this area. Every effort should be made to further avoid and minimize impacts to streams and wetlands and to provide on-site mitigation.	See response to Comment 3 in NCDWQ's letter (Document a004).
3	Water Resources	In addition to direct effects, the indirect and cumulative effects on streams and wetlands from this project and the development that it has the potential to induce will permanently alter the streams in the area and further degrade water quality and habitat. Although the municipalities in the study area are under the National Pollutant Discharge Elimination System's Phase II storm-water rules, these rules do not address the preservation of intact riparian buffers; limits on impervious surface amounts in a given watershed; or other factors critical to maintaining stable, properly functioning streams and aquatic habitat. Measures to mitigate secondary and cumulative impacts can be found in the North Carolina Wildlife Resources Commission's <i>Guidance Memorandum to Address and Mitigate Secondary and Cumulative Impacts to Aquatic and Terrestrial Wildlife Resources and Water Quality</i> . We strongly encourage the NCTA to work with local governments to adopt protective measures for streams and wetlands in the study area to reduce these impacts.	In accordance with NCDOT procedure, a qualitative Indirect and Cumulative Effects Assessment (Louis Berger Group, Inc., March 2009) report was completed and included in the Draft EIS. An <i>Indirect and Cumulative Effects Quantitative Assessment</i> (Louis Berger Group, Inc., August 2010) was prepared for the Preferred Alternative, as summarized in Section 2.5.5 of the Final EIS. Prior to commencement of this study, scoping with the environmental resource and regulatory agencies was conducted to ensure the study approach and scope met the expectations of the agencies. The water quality modeling portion of the quantitative ICE will be conducted as part of the permitting phase of the project. NCTA and FHWA agree that any protective ordinances adopted by local jurisdictions can be of benefit in protecting resources. Provisions regarding FHWA's responsibility and authority for mitigating project impacts are found in their environmental regulations Section 771.105(d). NCTA can encourage local governments to adopt regulations and land use plans that would help protect significant natural resources, but NCTA lacks any enforcement authority to ensure their adoption or adherence.

Appendix B1 – Agency Comments

Table B1-14: United States Department of the Interior Fish and Wildlife Service/Asheville Field Office

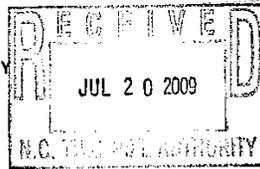
Document: a014 letter dated June 12, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
4	Protected Species and Wildlife	The fragmentation of terrestrial habitat is also a concern for this project. This new location freeway will bisect a number of farms and other working land and forests that provide habitat and movement corridors for wildlife and migratory birds. There is a brief discussion on page 6-18 regarding impacts to terrestrial wildlife, but there is no analysis specific to the alternatives proposed or the recommended alternative. This discussion also states that the NCTA will consider wildlife passage structures along the corridor, but there is no map to display where these structures may be located or in what habitats. Page 7-9 of the DEIS references a map showing the distribution of habitat in the study area and possible indirect and cumulative impacts to terrestrial wildlife, but this map is in another document that is not provided in the DEIS or its appendices. If large patches of habitat are being fragmented by the various alternatives, measures to avoid or minimize those impacts should be investigated, particularly if habitat or travel corridors for large mammals or migratory birds will be affected.	Habitat fragmentation was evaluated for all DSAs in the qualitative indirect and cumulative effects analysis summarized in Chapter 7 of the Draft EIS. As stated on page 6-18 of the Draft EIS, and in the list of Special Project Commitments, the NCTA will coordinate with the NCWRC, USFWS, and USEPA during final design on the feasibility and design of a wildlife passage at Stream S156, and on designing bridge crossings to be wildlife friendly when feasible. The map referenced on page 7-9 of the Draft EIS is included in the qualitative <i>Indirect and Cumulative Effects Assessment</i> . The report, incorporated by reference into the Draft EIS, is available on the NCTA Web site, and was provided to the environmental resource and regulatory agencies. Supporting documentation was incorporated by reference into the DEIS to keep the document a manageable size and limit duplication of information. Habitat fragmentation is further evaluated for the Preferred Alternative in the quantitative indirect and cumulative effects analysis summarized in Section 2.5.5 of the Final EIS.
5	Protected Species and Wildlife	The only federally listed species known to occur in the project study area is the Schweinitz's sunflower (<i>Helianthus schweinitzii</i>). According to the DEIS, there is a population of this sunflower along the western side of Union New Hope Road, and the majority of the alternatives (including the recommended alternative) would have no impact on this population. The DEIS further states that four of the proposed alternatives (Alternatives 4, 22,58, and 76) are near this population but would have no direct impacts. If one of these latter alternatives is chosen, further consultation will be required to determine whether this population will be impacted.	DSA 9 has been selected as the Preferred Alternative and would have no impact on the Schweinitz's sunflower (<i>Helianthus schweinitzii</i>) population.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 REGION 4
 ATLANTA FEDERAL CENTER
 61 FORSYTH STREET
 ATLANTA, GEORGIA 30303-9960

a015



Date: July 17, 2009

Ms. Jennifer Harris, P.E.
 North Carolina Turnpike Authority
 5400 Glenwood Avenue, Suite 400
 Raleigh, North Carolina 27612

SUBJECT: Federal Draft Environmental Impact Statement for the Gaston East-West Connector, From I-85 to I-485, Mecklenburg and Gaston Counties, North Carolina; TIP Project No.: U-3321; FHW-E40827-NC; CEQ No.: 20090159

Dear Ms. Harris:

The U.S. Environmental Protection Agency Region 4 (EPA) has reviewed the subject document and is commenting in accordance with Section 309 of the Clean Air Act and Section 102(2)(C) of the National Environmental Policy Act (NEPA). The North Carolina Turnpike Authority (NCTA) and the Federal Highway Administration (FHWA) are proposing to construct an approximate 22-mile, multi-lane, median-divided toll facility from I-85 west of Gastonia to I-485/NC 160 near Charlotte-Douglas Airport in Mecklenburg and Gaston Counties.

The proposed project has been in the NEPA/Section 404 Merger 01 process since 2002 when it was with the North Carolina Department of Transportation (NCDOT) as a freeway. The NCTA reaffirmed several concurrence points with the NEPA/Section 404 Merger 01 process team on October 7, 2008, including Purpose and Need (Concurrence Point - CP 1), Detailed Study Alternatives (DSAs) Carried Forward (CP 2) and Bridging and Alignment Review (CP 2A). EPA provided detailed scoping comments in a letter dated March 1, 2007. NCTA's May 4, 2007, responses to EPA's scoping comments are included in Appendix A to the DEIS.

EPA has attached detailed technical review comments (See Attachment A). EPA's primary environmental concerns regarding Clean Water Act and Clean Air Act provisions remain unresolved.

EPA has rated the twelve (12) DSAs as 'EO-2', Environmental Objections with additional information being requested for the final document. EPA's review has identified significant environmental impacts that should be avoided in order to adequately protect the environment. The basis for our environmental objections include that the proposed action might violate or be inconsistent with achievement or maintenance of a national environmental standard under the Clean Air Act's National Ambient Air Quality Standards (NAAQS), and where applicable standards may not be violated but there is a potential for significant environmental

2 degradation under the Clean Water Act and Section 404(b)(1) Guidelines. NCTA and FHWA should consider substantial changes to the preferred alternative or consideration of some other project alternatives, including improvements to existing I-85, interim Transportation System Management (TSM) approaches for US 29-74 and connecting roadways and other combinations of transportation improvements. Due to the significance of the unresolved environmental issues, EPA will be unable to concur on the selection of DSA 9 as the Least Environmentally Damaging Practicable Alternative ("LEDPA") at the concurrence point Merger 01 meeting.

3 Prior to the issuance of a Final Environmental Impact Statement (FEIS) and Record of Decision (ROD), NCTA and FHWA should demonstrate that the new location project will be included in an approved State Implementation Plan (SIP) and will be in conformity with Section 176(c) of the Clean Air Act Amendments for the 8-hour ozone standard. Also, NCTA and FHWA need to further demonstrate avoidance, minimization and compensatory mitigation for the environmental impacts to jurisdictional waters of the U.S. and demonstrate that water quality of Section 303(d) impaired streams is not further degraded as a direct result of this project and its associated indirect and cumulative impacts. Specific environmental commitments to protect air quality and water quality need to be included in the FEIS and ROD.

4 EPA staff, including Mr. Christopher Militscher and Ms. Kathy Matthews of EPA's Wetlands Section will continue to work with you and FHWA and other agencies on the continued environmental coordination and Merger 01 process activities for this project. Please feel free to contact Mr. Militscher of my staff at (919) 856-4206 or Ms. Matthews at (919) 541-3062 should you have specific questions concerning EPA's comments.

Sincerely,

Heinz J. Mueller, Chief
 NEPA Program Office

Cc: J. Sullivan, FHWA
 K. Jolly, USACE
 B. Wrenn, NCDENR-DWQ

Attachment A
DEIS Detailed Review Comments
Gaston East-West Connector Toll Facility
Mecklenburg and Gaston Counties
U-3321

Purpose and Need

EPA has reviewed the proposed project's purpose and need as summarized in Sections 1.2 and 1.3 of the DEIS. The primary needs for the proposed project are: there is poor transportation connectivity between Gaston County and Mecklenburg county and within southern Gaston County; and there are existing and projected poor levels of service (LOS) on the project study area major roadways. The proposed Gaston East-West Connector is also included as a Strategic Highway Corridor (SHC). The typical section is identified as a 4-lane, 70-foot median divided facility with 300 feet of right of way and 12-foot paved outside shoulders.

5 The DEIS references and includes the May 21, 2007, letter between NCTA and NCDOT regarding the decision by the State transportation agencies to study only toll alternatives in the EIS. EPA does not believe that this is consistent with the Council on Environmental Quality (CEQ) regulations at 40 CFR Section 1502.14(a) and (c). The Gaston East-West Connector's new location corridors and preliminary study alternatives (utilized by NCTA and included in the DEIS) were developed by the NCDOT when it was proposed as a freeway. FHWA, as the Lead Federal Agency (LFA) under NEPA, might have also considered a comparison of a toll facility with a 'freeway' and their resultant environmental impacts.

6 EPA notes that the Mecklenburg-Union Metropolitan Planning Organization (MUMPO) has identified sections east of the Catawba River for the Gaston East-West Connector in its Draft 2035 Long-Range Transportation Plan (LRTP). MUMPO on its Draft 2035 LRTP Roadway Ranking Priority List assigned rankings of 85, 327, 329 and 330 (out of approximately 340 total projects) for the sections where the Gaston East-West Connector is located in Mecklenburg County. EPA notes the Gaston County Future Land Use Map at Figure 1-11. A description of the 'Green Necklace' is not provided and it is noted that there are potentially substantial land use conflicts associated with this plan (e.g., Potential Industrial/Business Park north of Crowder Mountain State Park).

8 The DEIS includes detailed information regarding traffic volumes and operations for the project study area's major roadways, including I-85, US 29-74, and US 321. EPA notes that existing level of service (LOS) using 2006 data for I-85 in Table 1-2 shows 4 exits with LOS F, 2 exits with LOS E and 6 exits with LOS D. For US 29-74, under Table 1-3, 2006 LOS includes 2 intersections with LOS F, 3 intersections with LOS E, 7 intersections with LOS D, 8 intersections with LOS C, and 2 intersections with LOS B. For US 321, under Table 1-4, 2006 LOS includes 1 intersection at LOS F, 1 intersection at LOS E, 2 intersections at LOS D, 6 intersections at LOS C, 2 intersections at LOS B, and 1 intersection at LOS A. Table 1-5 also includes 2006 and 2030 existing and projected traffic volumes and LOS for I-485 in Mecklenburg County. The 2006 LOS is C at Exit 4 and the 2006 LOS is LOS A at Exit 9.

8 The DEIS tables also identify 2006 and 2030 traffic volumes (in Annual Average Daily Traffic- AADT) along the various major roadways as well as their corresponding segments. In nearly all cases, NCTA and FHWA are projecting significant traffic volume increases along I-85, US 29-74, and US 321 in the design year. For example, I-85 and US 29-74 are projected to have between approximately 30-50% increases in AADT by 2030. It is unclear from Section 1.6.2 of the DEIS what assumptions are being made by the planning organizations (GUAMPO and MUMPO) and transportation agencies in estimating future travel demand for these roadways and what development pressure and induced traffic will be added as a result of the new facility. The DEIS cites in several places, that the project study area is mostly suburban and rural in character. EPA notes the estimated population change by U.S. Census block groups from 1990 to 2000 in Figure 3-2. The DEIS also includes information on minority and low-income demographic information which is depicted in Figures 3-3, 3-4 and 3-5. One of EPA's past and continued concerns has been the construction of a toll facility in an area where there are many block groups characterized as minority and low-income (See comment section on "Environmental Justice" below).

Alternatives Considered

10 The DEIS addresses the first and second screening methods utilized to develop preliminary study alternatives and further identify DSAs. The DEIS identified the public involvement and agency coordination involved with the alternatives screening process. Page 2-4 of the DEIS states: "Initially, the First Screening focused on the ability to meet Purpose and Need. Several alternatives were eliminated largely or entirely based on their inability to meet the Purpose and Need (TSM, TDM, Mass Transit, Multi-modal)". EPA was a concurring agency to carry forward the twelve (12) DSAs. However, the DEIS does not specifically address how a combination of alternatives as referenced above with other transportation improvements to existing major roadways might be able to meet the Purpose and Need. EPA does not agree with the conclusions regarding the mass transit alternative on pages 2-8 and 2-9. NCTA's and FHWA's preferred alternative DSA 9 has an estimated median cost of \$1.282 billion. A primary rationale provided in the DEIS for eliminating the mass transit alternative (e.g., Light rail), is the estimated cost of 'at least \$1.06 billion' for a 22-mile new location rail system. EPA notes the following key statement regarding mass transit on new location: "In addition, there is no program currently in place within North Carolina or in Gaston County to fund such improvements". The DEIS continues to state that the lack of financial feasibility is an additional reason for finding that this alternative is not a reasonable alternative. EPA requested in its March 1, 2007, letter that combinations of alternatives also be further studied and analyzed in the DEIS. Referring to CEQ regulations 40 CFR Section 1502.14(c), FHWA and NCTA might have considered partnering with the Federal Transit Authority (FTA) to evaluate a combination of alternatives that could potentially meet the project purpose and need. From a public disclosure and analysis standpoint EPA believes that for the eastern portions of the project study area a mass transit alternative is still potentially a 'reasonable' alternative under NEPA in combination with other new location and improve existing options.

The DEIS includes twelve (12) DSAs including alternatives 4, 5, 9, 22, 23, 27, 58, 64, 68, 76, 77, and 81. For all of the DSAs, the indirect and cumulative effects and potential for

accelerated growth and indirect effects in Gaston County are rated 'High' in Table S-2. The NCTA and FHWA have identified DSA 9 as their preferred alternative.

Wetland and Stream Impacts

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EPA acknowledges that the FHWA and NCTA's recommended (preferred) alternative is DSA 9 and that it has lower wetland and stream impacts than many of the other alternatives considered (with the exception of DSA 68 and 81 for stream impacts). DSA 9 has 48,995 linear feet of total stream impact with 38,894 linear feet of impact to perennial streams. There is an estimated 20,615 square feet of impact to Catawba River riparian buffers. Jurisdictional wetland impacts are 7.5 acres for DSA 9. Based upon tracking records that EPA began in 2002, the proposed project would have 2,237.2 linear feet of stream impact per mile of multi-lane new location facility. This is more than double the State-wide average of approximately 1,000 linear feet for a Piedmont or western North Carolina project and potentially the highest impact per mile of any Merger project since 2002. DSA 9 also includes 91 total stream crossings. EPA considers the direct impacts to waters of the U.S. to be very significant.

12

The DEIS does not fully address EPA's comments from the March 1, 2007, scoping letter concerning the need to fully consider and address the number and associated impacts for free-flowing interchanges and toll collection facilities. EPA requested that full consideration be given to using single point urban interchanges (SPUI) and compressed cloverleaf designs at grade separated locations. The DEIS on page 2-50 discusses the option of removing the intersection at the US 29-74 interchange (depicted on Figures 2-9 d & e) from the project design, but there is no formal conclusion reached on the issue. EPA requested during past Merger meetings that due to the traffic volumes and resources in the area, serious consideration be given to eliminating this interchange. A SPUI or other compressed interchange design might have also reduced stream and wetland impacts at the Robinson Road interchange (Figure 2-9q), Bud Wilson Road interchange (Figure 2-9s), Bradley Trail interchange (Figure 2-9u), NC 273 interchange (Figure 2-9cc) and the I-485 Interchange (Figures 2-9gg, hh and ii).

EPA recognizes the different interchange designs shown in the aforementioned figures. However, the DEIS does not contain a specific discussion or analysis as to the types of interchanges examined. Section 6.4.5.3 under 'Avoidance and Minimization' states that the 'presence of wetlands and streams and minimizing or avoiding impacts to these resources was a factor in considering interchange configurations'. However, there is no detailed discussion as to how important these resources were considered and if SPUIs or other compressed cloverleaf designs were given full consideration. From previous Merger meeting discussions, EPA staff commented that 'high-speed' to 'high-speed' interchange and ramp designs were not necessarily needed at all the potential interchange locations and that 'low-speed' connections at secondary roads should be considered.

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The DEIS does not provide details as to how and to what degree the DSAs incorporate measures to avoid and minimize impacts to jurisdictional waters. EPA does recognize the CP 2A bridge field review meeting on avoidance and minimization efforts conducted in December of 2007. EPA technical staff were directly involved in these field investigations. However, direct

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impacts to existing 303(d) listed impaired streams and other waters at risk from further degradation have not been fully addressed from the standpoint of avoidance and minimization (e.g., proposed median width of 70 feet, 300-foot minimum right of way, 12-foot paved outside shoulders, etc.).

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The DEIS does not address our comments on pages 4 and 5 of our March 1, 2007, scoping letter, recommending that NCTA and FHWS provide a conceptual plan in the DEIS which includes opportunities for on-site mitigation. The preferred alternative has approximately 7.5 acres of jurisdictional wetland impacts and 48,995 linear feet of total stream impact. There is no detail provided in the DEIS if there is adequate on-site or off-site mitigation available in the HUC. Although mitigation is discussed in Section 6.4.5.4, no details are provided. Also in this section, the DEIS includes a short statement about off-site mitigation. The paragraph mentions the Memorandum of Agreement (MOA) between NC Department of Transportation (DOT) and the Ecosystem Enhancement Program (EEP). It is unclear whether NCTA is subject to the DOT/EEP MOA (in which case, it is likely that mitigation plans are already underway for these impacts), or if NCTA will pay into the traditional in-lieu fee program run by EEP under a Memorandum of Understanding (MOU) with NC Department of Natural Resources and the Corps. Under the MOU program, EEP may not have any mitigation planned until after NCTA provides payment, typically after the permit is issued. The FEIS should clearly state which program NCTA will utilize for wetland and stream mitigation. EPA recommends that NCTA identify conceptual on-site mitigation opportunities in the FEIS. The Corps and NCDWQ may require mitigation for all intermittent as well as perennial streams. EPA recommends that NCTA propose compensatory mitigation for all impacts to jurisdictional resources. The lack of a conceptual mitigation plan for impacts to jurisdictional waters of the U.S. is a significant deficiency in this DEIS.

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In the March 1, 2007 letter, EPA also requested that FHWA and NCTA explore methods to directly address mitigation for indirect and cumulative effects of the proposed project, including long-term impacts to water quality. The DEIS has no specific discussion of mitigation for indirect and cumulative effects. EPA is concerned that although we specifically identified significant issues with the use of the North Carolina Wetlands Ratings System (WRS) on this project (forested wetlands labeled as emergent wetlands, forested wetlands adjacent to streams receiving a rating of zero from at least one of the consultant teams), NCTA continues to rely on the WRS scores to describe the wetlands that may be impacted. NCTA should complete a North Carolina Wetland Assessment Method (NCWAM) assessment on all wetland impact sites for the recommended alternative and present the information in the FEIS. EPA does not believe that the WRS provides meaningful information for wetlands permitting decisions. In Section 6 of the DEIS, there is a discussion concerning the soils within the project area and states that the entire area underlain by the project is rated moderate or severe for road construction, and may require "special planning, design or maintenance to overcome soil limitations." However, EPA could find no discussion regarding the need for potential borrow sites, and the potential impacts to uplands, wetlands, and streams from these borrow pits. If borrow sites will be necessary, the FEIS should fully explore the amount of borrow needed and potential impacts (quantitative) to natural areas, including terrestrial areas, wetlands, and streams.

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WRS provides meaningful information for wetlands permitting decisions. In Section 6 of the DEIS, there is a discussion concerning the soils within the project area and states that the entire area underlain by the project is rated moderate or severe for road construction, and may require "special planning, design or maintenance to overcome soil limitations." However, EPA could find no discussion regarding the need for potential borrow sites, and the potential impacts to uplands, wetlands, and streams from these borrow pits. If borrow sites will be necessary, the FEIS should fully explore the amount of borrow needed and potential impacts (quantitative) to natural areas, including terrestrial areas, wetlands, and streams.

Portions of Abernethy Creek, Crowders Creek, McGill Branch, Catawba Creek, and South Fork Catawba River within the project area are on the 303(d) list of impaired waters, due to aquatic life impairments resulting from urban runoff, and storm sewers. Some of the possible causes include non-point sources of pollutants such as sediment from construction sites, stormwater runoff from farms and residential areas, faulty septic tanks, etc. Section 6.2.2.4 of the DEIS lists other possible sources of pollution. NCTA's proposed road construction is a type of activity that is shown to be causing or contributing to the impairment of these receiving waters. Considering the magnitude of the direct impacts, there is the potential that NCTA's activities will cause or contribute to the continued degradation of these waterbodies, or prevent them from being restored, contrary to the Clean Water Act. The DEIS provides no information on specific actions that NCTA will take to avoid and minimize impacts (direct and indirect) to 303(d) listed impaired streams. Local ordinances, riparian buffer rules and implementation of past stormwater control initiatives have not proven to be successful in addressing these continued developmental impacts. Moreover, the recommended alternative will directly impact approximately 7.5 acres of jurisdictional wetlands and 48,995 linear feet (approximately 9.3 miles) of streams. Riparian buffers are not specifically protected in many parts of the project study area. NCTA should commit to provide adequate methods of storm water treatment to remove pollutants and sediment, during construction and afterward. While there is a commitment to adhere to typical NCDOT Best Management Practices (BMPs) and requirements of the North Carolina Department of Environment and Natural Resources Division of Land Resources, EPA believes that efforts greater than the typical BMP requirements may be necessary. EPA believes that typical sediment and erosion control and stormwater management controls and Best Management Practices (BMPs) in the Piedmont have not shown to be very effective based upon NCDOT studies commissioned with the North Carolina State University's Department of Biological and Agricultural Engineering (i.e., Dr. Daniel E. Line). Erosion rates from one NCDOT Piedmont project using BMPs still showed off-site erosion rates to receiving waters during construction of 18.5 tons per year over three years. NCTA and FHWA should commit to providing the most aggressive methods of sediment and erosion control and stormwater treatment to remove pollutants and sediment, during construction and afterwards.

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Specifically, NCTA and FHWA should at a minimum make environmental commitments to provide methods such as wet ponds, created stormwater wetlands, infiltration trenches and wells, sand filters, temporary and permanent retention ponds, level spreaders, retaining walls to reduce fill impacts from steep slopes, and reinforced grassed-swailes. During construction, NCTA and FHWA should also restrict clearing and grubbing to the maximum extent possible. More effective soil erosion and turbidity control measures researched by NCDOT and NCSU including Polyacrylamide (PAM), coconut fiber logs, and absorbent wattles should be incorporated into the soil and erosion control plan and included as an environmental commitment (Note: these more costly measures have been shown to drastically reduce turbidity and sedimentation during construction). Permanent stormwater measures (including detention basins/hazardous spill catch basins) should be planned and designed within the proposed facility's right of way to address future development runoff and hydrologic trespass from off-site sources such as residential and commercial developments, toilet collection facilities, and parking lots. NCTA and FHWA should consider the use of hazardous spill catch basins/stormwater basins at key locations, including 303(d) listed streams that are already impaired from urban runoff and pollutants. EPA, as well as other agencies, previously requested that FHWA and

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NCTA explore methods to directly address mitigation for indirect and cumulative effects of the proposed project, including long-term impacts to water quality. FHWA and NCTA are not proposing any mitigation for indirect and cumulative impacts to water quality. According to the Summary of Potential Indirect Impacts (Table S-2), Gaston County is expected to have "High" potential for accelerated growth as a result of the project. Furthermore, this table also cites that the potential effects on water quality, wetlands, impaired waterways, and watersheds as a result of the accelerated growth are "Strong" to "Very Strong."

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In the March 1, 2007, scoping letter, EPA also requested that FHWA and NCTA perform a quantitative Indirect and Cumulative Impacts (ICI) analysis for this proposed project. The DEIS does state (i.e., page 7-2) that a quantitative assessment would be conducted on the preferred alternative following the DEIS, if FHWA and NCTA determine that a quantitative analysis is needed. However, the ICI in the DEIS is only qualitative, and does not provide meaningful information concerning potential impacts to wetlands, streams, water quality, air quality, and endangered species. The Indirect and Cumulative Effects Section (Section 7) of the DEIS is not specific, and provides no quantitative data to characterize the existing conditions in the project area (such as percent land use by commercial, agriculture, etc.). There are no quantitative data presented in the DEIS concerning potential indirect and cumulative impacts to wetlands, streams, water quality, and wildlife habitat. In general, the indirect and cumulative effects to water quality are not adequately addressed by the DEIS. Section 6.2.4 (page 6.9) states that indirect and cumulative effects to water quality are discussed in Section 7.5. However, Section 7.5 (page 7-13) states that indirect and cumulative effects are discussed in Section 6.2.4. Neither section fully or adequately addresses the issue. The ICI simply states that cumulative effects can be minimized through implementation of local stormwater ordinances and BMPs. However, local ordinances and implementation of stormwater control initiatives in the past have not proven to be successful in addressing these continued development conditions. EPA continues to recommend that the NCTA develop a quantitative analysis of the indirect and cumulative impacts from the proposed project and recommend appropriate avoidance, minimization and mitigation measures for the anticipated impacts.

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The FEIS should include more quantitative data on existing conditions and potential impacts to wetlands, streams, water quality, and wildlife habitat from the 'No Build Alternative' and the Preferred Alternative. Existing land use may be estimated using the NWI data or other GIS wetland data and the USGS's North Carolina GAP Analysis Project's land use coverage map. There are also many useful GIS data layers at NC One Map. The FEIS should calculate the acreage of induced growth from the Preferred Alternative, using the No Build as a baseline. The FEIS should also calculate the cumulative amount of potential impervious surfaces added and cumulative increase in percent impervious surface for each watershed resulting from the project and other reasonably foreseeable activities. For instance, the FEIS developed for the I-73 project (TIP I-4923) utilized NRCS's *Urban Hydrology for Small Watershed Basins: 1975* to determine the percent of impervious surfaces for land use type. This FEIS then multiplied the predicted acreage of a type of development (residential, commercial, etc.) by the corresponding percentage (e.g. 85% for commercial development, 72% for industrial development, etc.). Likewise, land use models and available GIS information on wetlands and streams in the project area could be used to develop predictions of indirect and cumulative impacts to wetlands and streams in the watershed.

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22 At a minimum, the FEIS should list known areas of impacts (recent and future TIP projects with projected impacts and other permitted or planned activities) along with the estimated amounts and a total estimated impact for each watershed. Further, the water quality impacts could also be estimated using the FHWA's "Constituents of Highway Runoff" to estimate the amount of pollutant that would enter streams after a twenty-day buildup period, assuming there were no structures such as retention basins or ditches to filter sediment. It is understood that storm water requirements must be met, and that avoidance and minimization efforts may reduce the amount of estimated wetland and stream impacts. It is also understood that the quantitative information is an estimate, and may provide a worst-case scenario. However, the FEIS should provide as much quantitative information as possible.

Air Quality Impacts

23 EPA notes the special project commitment ("Green Sheet") regarding air quality and that NCTA will coordinate with GAUMPO and MUMPO to ensure that the air quality conformity determination for the region includes the project's design concept and scope consistent with the 'preferred alternative' prior to the Record of Decision (ROD).

24 EPA believes that vehicle miles traveled (VMTs) will substantially increase from the proposed action, particularly in the Gaston County area. EPA further concurs with NCTA and FHWA that the proposed action will significantly induce {"accelerate"} development within the project study area. Increased development further from Charlotte and other more urbanized areas will invariably increase vehicle commutation distances and result in increased air pollution emissions. Any congestion management relief along I-85 and other east-west routes will be potentially offset by increased 'development sprawl', greater VMTs in the project study area and, ultimately, increased air pollution emissions.

25 Please refer to Appendix A-8 of the DEIS, which includes EPA's letters of November 17, 2008, and January 9, 2009, on the State Implementation Plan (SIP). We wish to emphasize that EPA issued a Final Rule in the Federal Register on May 8, 2009, for the 'Finding of Failure to Submit State Implementation Plans Required for the 1997 8-Hour Ozone National Ambient Air Quality Standard: North Carolina and South Carolina.

The DEIS states that the Charlotte-Gastonia-Rock Hill air quality region was designated as a 'moderate non-attainment' area on June 15, 2004, for the 1997 8-hour ozone standard. Based upon recent monitoring data, 2007 and 2008 8-hour ozone concentrations averaged approximately 84 micrograms per cubic meter (ug/m³). In order to retain the moderate non-attainment status and not be reclassified by EPA as 'serious non-attainment', 2009 monitoring data for the 8-hour ozone standard would have to be 65 ug/m³. While still early in the '2009 ozone season', the North Carolina Division of Air Quality (NCDQA) has already issued several Code Orange ozone alerts for the Charlotte and Piedmont areas as of June 4, 2009. From a CAA perspective, a 'maintenance area for attainment' means that the urban area has exceeded NAAQS levels for one or more pollutants in the past. The 1997 8-hour average ozone standard and the 2008 8-hour average ozone standard are 0.08 and 0.075 parts per million, respectively.

Section 4.4.4 of the DEIS outlines substantial information on transportation conformity, regional conformity analysis, project-level ("hot-spot") conformity analysis, conformity determinations for LRTPs and TIPs, potential for conformity lapse grace period, potential for a conformity lapse, implications for the Gaston East-West Connector project, status of the SIP for the 'Metrolina' Region, and the status of the SIP. EPA concurs with most of the information and analysis in this section of the DEIS. The next update for the GUAMPO LRTP is June 30, 2009 and for the MUMPO LRTP it must be approved by May 3, 2009.

26 Referring to EPA's previous letters on the SIP and transportation conformity, EPA believes that it is highly improbable that the Charlotte area will be able to retain its moderate non-attainment status for the 8-hour ozone that is required by June 15, 2010. One of the primary reasons for the 'Environmental Objections' rating for the preferred DSA D alternative is where an action might violate or be inconsistent with achievement or maintenance of a national environmental standard. Under EPA's policy and procedures under Section 309 of the CAA and NEPA, the threshold for rating the environmental impact of the proposed action is based not only on the potential or likelihood to violate a national environmental standard, but also on the proposed mitigation for the project and if that mitigation is adequate to address the potential and significant environmental impacts. NCTA and FHWA did not propose any air quality related mitigation to address the potential direct impact from this 22-mile, new location toll facility or its indirect and cumulative effects. Until the issues involving the SIP, LRTP update, TIP and conformity demonstration are fully resolved, EPA believes that this new location project will continue the pattern of development sprawl in the Charlotte/Metrolina area and further result in air quality degradation and future potential violations of the CAA's 8-hour ozone standard. EPA concurs with NCTA and FHWA that this new location facility will most likely induce development in the project study area. However, EPA does not agree with NCTA and FHWA conclusion that this induced development will not ultimately result in an increase of the VMTs due to the construction of the new location roadway. Our environmental objection rating includes other new location alternatives (DSAs) as well.

Mobile Source Air Toxics (MSATs)

27 EPA has reviewed the Mobile Source Air Toxics (MSATs) sections contained at 4.2.3, and Appendix H. EPA acknowledges that a more detailed qualitative analysis was provided in the DEIS. The DEIS states that there is an approximate 12% increase (for Gaston County) in VMTs for the new location alternatives versus the 'No Build Alternative'. However, EPA does not concur with the general regional assessment provided in Section 4.2.3 or Appendix H. EPA does concur with the statement provided on Page H-8 of the DEIS: "In summary, under all DSAs in the design year, it is expected that there will be higher MSAT emissions in the immediate project area, relative to the No Build Alternative, due to increased VMT." EPA's recent technical comments concerning MSATs for the Monroe Bypass/Connector project apply to this project as well. The qualitative analysis provided in the DEIS considers MSATs to be a regional air quality issue and does not address the specific environmental concerns for potential near-roadway exposures to increases in MSATs.

28 The DEIS does not identify any 'local control measures' for MSATs in the project study area. FHWA has asserted that MSATs cannot be accurately modeled and the health effects

28 accurately predicted. EPA requests that FHWA provide the identification of 'local control measures' and how these measures could be assessed against 'uncertain health effects'. Again, please refer to EPA's letter dated June 15, 2009, concerning MSATs and the specific measures to reduce emissions during construction and for the final project design

29 The DEIS does identify 4 public schools (Section 2.3.1.4 and Figure 3-7a-b) located near the boundaries of the DSA corridors and no other potential sensitive receptors. Considering the 10,000 to 61,800 AADTs on the new facility and that this is potentially a 'new emission source', the development of a finite period monitoring program would not be inconsistent with other past FHWA actions regarding MSATs. Furthermore, direct data collection by FHWA would address some of the 'uncertainty' that it has expressed in the modeling and baseline estimates for MSATs. There are numerous more recent, peer-reviewed and published health studies and the correlation with near roadway exposures to MSATs that have not been considered or cited in the DEIS. EPA recently provided examples of several local control measures for the Monroe Bypass/Connector project that are applicable for this proposed project as well.

Environmental Justice (EJ)

30 Section 3.2.5.1 includes the primary issues of EJ under Executive Order 12898. Section 3.2.5.2 of the DEIS includes a discussion on EJ as it relates to the proposed project, including public involvement and outreach conducted by NCTA and FHWA. Table 3-7 provides a general evaluation for the proposed toll facility. EPA does not fully concur with this assessment provided on Pages 3-25 to 3-28. The minority and low-income communities in the project study area would receive the 'higher percent' of impact from the new facility in terms of air quality and noise impacts, but would not necessarily receive a proportionate benefit of access due to the potential toll costs. This evaluation generally considered direct relocation impacts to minority and low-income neighborhoods and did not fully consider the long-term air quality and noise impacts. Using existing I-85 and other routes does not address the issue that minority and low-income persons would have to drive further and at greater cost than persons who would have access to the new toll facility. DSA 9, the preferred alternative, also has one of the highest percentages of minority relocations of all of the DSAs (26-28 % of the total number of residential relocations).

Noise

31 Section 4.1 of the DEIS contains detailed information regarding potential noise receptor impacts. For DSA 9, there are an estimated 245 total number of impacted receptors using FHWA Noise Abatement Criteria. FHWA and NCTA are proposing 12 'feasible and reasonable' noise barriers that are 20,562 linear feet in total length that benefit approximately 169 impacted receptors for DSA 9. NCTA and FHWA are not proposing any other forms of potential noise abatement measures within the project study area such as different pavement types, reduced speed limits, earthen berms, or vegetative screens.

Prime Farmlands and Agricultural Lands

32 Section 4.3.4 of the DEIS describes Farmland Impacts. It should be noted that North Carolina lost more than 600,000 acres of farmland from 2002-2007 according to a recent census by the U.S. Census of Agriculture. Also in this period, North Carolina lost approximately 1,000 individual farms. A more recent U.S. Department of Agriculture report in 2007 showed that North Carolina lost 1,000 farms in 2006 alone, making it the state with the largest loss of farms in the U.S. These trends are expected to continue as North Carolina continues to promote roadway infrastructure, development and urbanization further from metropolitan center districts. Past State and Federal initiatives to minimize farmland losses appear to be having little effect on these alarming trends.

33 None of the farmlands impacted for the DSAs are considered to meet the Land Evaluation Site Assessment (LESA) criteria under Title 7, CFR Part 658 as being Prime, Unique or of Statewide importance. However, there are approximately 1,109 acres comprising 21 parcels in Gaston County and within the DSA corridors currently participating in local Voluntary Agricultural District (VAD) programs. This program (NCGS Chapter 106, Sections 735-743) authorizes counties to undertake a series of programs to encourage the preservation of qualifying farmland and to foster growth, development and sustainability of family farms. Figure 4-3 depicts the parcels participating in this farmland preservation program and the corresponding locations within the DSAs. Table 4-11 provides impacts to VAD properties and DSA 9 would potentially impact 449.1 acres and 10 properties that are participating in the farmland preservation program. The statement concerning Gaston County planning staff and future land use (i.e., greater suburban development) appears to be inconsistent with the intent of NC General Statute for VADs. EPA also does not concur with the 'relocation assessment' for active farms that will need to be relocated and that there is 'suitable replacement property' available. The DEIS does not offer any potential avoidance and minimization measures (e.g., reduced right of way, keeping to property boundaries, providing access to dissected fields, etc.) to potentially reduce impacts to farmlands.

Other Human and Natural Environment Direct Impacts

35 The DEIS identifies other human and natural environment impacts for the DSA 9 preferred alternative as well as other DSAs in Table S-2, including 348 residential relocations, 37 business relocations, 18 named neighborhoods impacted, 3 churches impacted, 1 public park, 24 hazardous material sites, 13 floodplain crossings, 2 historic resources with No Adverse Effects, 177 acres in agricultural lands, and 882 acres of terrestrial forests. Potential impacts to archeological sites are considered to be 'Moderate', but final surveys have not been conducted. Due to the rural nature of a substantial portion of the project study area and the significant impacts to terrestrial forests, the EPA believes that wildlife habitat fragmentation is a potentially significant issue, including safety concerns. EPA believes that further consultation with FWS and WRC is needed to identify wildlife crossings and other minimization measures involving large mammals such as deer, and a new, high-speed, multi-lane facility. EPA notes the comments on page 6-18 of the DEIS concerning the feasibility and design of the wildlife passage at Stream S156.

NCTA and FHWA estimate the probable range of total project costs at \$1.18 to \$1.4 billion with a median total project cost of \$1.28 billion for DSA 9.

Indirect and Cumulative Effects

37 In general, the Indirect and Cumulative Effects (ICE - Section 7) is not specific, and provides no quantitative data to characterize the existing conditions in the project area (such as percent land use by commercial, agriculture, etc.). There are no quantitative data concerning potential impacts to wetlands, streams, water quality, and habitat. Section 7 of the DEIS only provides qualitative statements, and in some cases, subjective conclusions. The DEIS assumes that growth will continue in the corridor regardless of the construction new location roadway, and that the existing local and state requirements will minimize impacts. However, no data is provided to support these conclusions. For this proposed toll facility, the ICE is broken up into 'Districts'. EPA does not concur with numerous subjective statements concerning future development and growth 'without' the proposed project. Interchange locations as identified on pages 7-14 and 7-15 are very likely to develop in the future – but only with the new roadway.

38 DEIS Figure 7-2 and page 7-12 of the ICI demonstrates the expected travel 'time savings' from the project. More than half of the project area shows little if any (0-5 minutes) 'time savings' in travel from the proposed project. The greatest area of travel time improvement is along the project in the southeast corner of Gaston County, and south to York County. There appears to be little to no change for most of Gaston County and project study area. However, Table 7-2 on page 7-20, which indicates a "High Potential for Project to Improve Mobility, Access, and Connectivity" in both Gaston and Mecklenburg portions of the ICE study area, which is inconsistent with the fact that more than half of Gaston County's portion of the study area is shown with little to no 'time savings', and all of Mecklenburg County's portion of the study area is shown with little to no time savings (Figure 7-2).

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The FEIS should include more quantitative data on existing conditions and potential impacts to wetlands, streams, water quality, and habitat from the No Build Alternative and the Preferred Alternative. For example, existing land use may be estimated using the NWI data or other GIS wetland data and the USGS's North Carolina GAP Analysis Project's land use coverage map. There are also many useful GIS data layers at NC One Map. The FEIS should calculate the acreage of induced growth from the Preferred Alternative, using the No Build as a baseline. The FEIS should also calculate the cumulative amount of potential impervious surfaces added and cumulative increases in percent impervious surface for each watershed from the proposed project and other reasonably foreseeable activities. For instance, the FEIS developed for the I-73 project (TIP I-4923) utilized NRCS's *Urban Hydrology for Small Watershed Basins: 1975* to determine the percent of impervious surfaces for land use type. This FEIS then multiplied the predicted acreage of a type of development (residential, commercial, etc.) by the corresponding percentage (e.g. 85% for commercial development, 72% for industrial development, etc.). Likewise, land use models and available GIS information on wetlands and streams in the project area could be used to develop predictions of indirect and cumulative impacts to wetlands and streams in the watershed.

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At a minimum, the FEIS should list known areas of impacts (recent and future TIP projects with projected impacts and other permitted or planned activities) along with the estimated amounts and a total estimated impact for each watershed. Further, the water quality impacts could be estimated using the FHWA's "Constituents of Highway Runoff" to estimate the amount of pollutant that would enter streams after a twenty-day buildup period, assuming there were no structures such as retention basins or ditches to filter sediment. It is understood that storm water requirements must be met, and that avoidance and minimization efforts may reduce the amount of estimated wetland and stream impacts. It is also understood that the quantitative information is an estimate, and may provide a worst-case scenario. However, the FEIS should provide as much quantitative information as possible and EPA is requesting a more 'quantitative' indirect and cumulative impact assessment for the preferred DSA 9 alignment for all the 'Districts'.

DEIS Format

39 EPA notes that the DEIS is divided into twelve (12) sections. There is a recommended format for environmental impact statements specified at Title 40 of the Code of Federal Regulations Section 1502.10. EPA recommends that the FEIS for this proposed toll facility be presented in the recommended format contained in the CEQ regulations. Subsections under the basic chapter headings might be used as appropriate.

References:

- FHWA, 1981. FHWA/RD-81/042: Constituents of Highway Runoff. Washington D.C., 1981
- USDA-NRCS Soil Conservation Service Engineering Division. Urban Hydrology for Small Watershed Basins, Technical Release No. 55. January 1, 1975.
- USFWS, National Wetland Inventory, Wetlands Digital Data.
- USGS, North Carolina GAP Analysis Project, Land Use Coverage Map.

Appendix B1 – Agency Comments

Table B1-15: US EPA Region 4 Atlanta Federal Center

Document: a015 letter dated July 17, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
1	Water Resources	The proposed project has been in the NEPA/Section 404 Merger 01 process since 2002 when it was with the North Carolina Department of Transportation (NCDOT) as a freeway. The NCTA reaffirmed several concurrence points with the NEPA/Section 404 Merger 01 process team on October 7, 2008, including Purpose and Need (Concurrence Point - CP 1), Detailed Study Alternatives (DSAs) Carried Forward (CP 2) and Bridging and Alignment Review (CP2A). EPA provided detailed scoping comments in a letter dated March 1, 2007. NCTA's May 4, 2007, responses to EPA's scoping comments are included in Appendix A to the DEIS.	Comment acknowledged. The NCTA appreciates the participation of the USEPA and other environmental resource and regulatory agencies throughout the process.
2	Alternatives Considered	EPA's primary environmental concerns regarding Clean Water Act and Clean Air Act provisions remain unresolved. EPA has rated the twelve (12) DSAs as 'EO-2', Environmental Objections with additional information being requested for the final document. EPA's review has identified significant environmental impacts that should be avoided in order to adequately protect the environment. The basis for our environmental objections include that the proposed action might violate or be inconsistent with achievement or maintenance of a national environmental standard under the Clean Air Act's National Ambient Air Quality Standards (NAAQS), and where applicable standards may not be violated but there is a potential for significant environmental degradation under the Clean Water Act and Section 404(b)(1) Guidelines. NCTA and FHWA should consider substantial changes to the preferred alternative or consideration of some other project alternatives, including improvements to existing I-85, interim Transportation System Management (TSM) approaches for US 29-74 and connecting roadways and other combinations of transportation improvements. Due to the significance of the unresolved environmental issues, EPA will be unable to concur on the selection of DSA 9 as the Least Environmentally Damaging Practicable Alternative ("LEDPA") at the concurrence point Merger 01 meeting.	<p>The Draft EIS evaluated a range of reasonable alternatives as required by 23 CFR 771.123(c). The USEPA agreed and signed the Concurrence Form for Concurrence Points 1, 2, and 2a (form included in Appendix A-1 of the Draft EIS).</p> <p>Subsequent to the Draft EIS, the NCTA, in coordination with the environmental resource and regulatory agencies (including the USEPA), has proposed design changes to the Preferred Alternative that would reduce impacts. These design changes are described in Section 2.3 of the Final EIS. The USEPA specifically requested that the NCTA review the mainline design and interchange configurations for opportunities to reduce the proposed project's footprint. The NCWRC specifically requested consideration of a narrower median. The Preferred Alternative refined preliminary designs include a reduced footprint at the Robinson Road interchange, US 274 (Union Rd) interchange, the NC 273 (Southpoint Rd) interchange, and the I-485 interchange. The Bud Wilson Rd interchange was eliminated. A narrower median (50 feet) was incorporated into the Preferred Alternative. Many of the design refinements result in substantial reductions in impacts to jurisdictional resources, as listed in Section 2.3.3.</p> <p>Selection of the LEDPA and Preferred Alternative was discussed at TEAC meetings on August 12, September 8, and October 13, 2009. A concurrence form for Concurrence Point 3 (LEDPA), included in Appendix G, was signed by the FHWA, NCTA, NCDOT, USACE, USFWS, NCDWQ, NCWRC, NCDCR, GUAMPO, and MUMPO. The USEPA provided a memo (also included in Appendix G) stating "EPA does not believe that the LEDPA is 'ripe for concurrence' until the Metrolina area air quality ozone issues are resolved first and avoidance and minimization can be demonstrated for Section 303(d) listed impaired waters."</p> <p>Concurrence Point 4a (avoidance and minimization of jurisdictional resource impacts) was discussed at the February 16, 2010 TEAC meeting. A concurrence form for CP 4a is included in Appendix G, and was signed by FHWA, NCTA, NCDOT, USACE, USFWS, NCDWQ, NCWRC, NCDCR, GUAMPO, and MUMPO.</p>

Appendix B1 – Agency Comments

Table B1-15: US EPA Region 4 Atlanta Federal Center

Document: a015 letter dated July 17, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
			<p>In an email dated July 1, 2010, USEPA acknowledged that with the region’s air quality conformity determination, the USEPA’s concerns regarding air quality were resolved. However, they stated, “EPA continues to have substantial environmental concerns regarding the ability to provide adequate compensatory mitigation for jurisdictional impacts to waters of the U.S. EPA has not yet received a conceptual mitigation plan as requested. As you may be aware, NCDWQ as of October 2009 requires mitigation for all intermittent streams as well.</p> <p>I appreciate that some avoidance and minimization on the Preferred Alternative has been accomplished which is the primary reason why I conditionally concurred. However, I continue to have environmental concerns regarding the selection of the LEDPA. Please refer to EPA’s comment letter on DEIS for further information. EPA does not believe that pursuing an elevation to the MMT or Review Board is appropriate at this time.”</p> <p>NCTA prepared a Conceptual Mitigation Plan for the Preferred Alternative, which is summarized in Section 2.5.4.4 of the Final EIS. The document was posted on the project website on July 6, 2010, and USEPA was notified of its availability.</p>
3	Air Quality	<p>Prior to the issuance of a Final Environmental Impact Statement (FEIS) and Record of Decision (ROD), NCTA and FHWA should demonstrate that the new location project will be included in an approved State Implementation Plan (SIP) and will be in conformity with Section 176(c) of the Clean Air Act Amendments for the 8-hour ozone standard. Also, NCTA and FHWA need to further demonstrate avoidance, minimization and compensatory mitigation for the environmental impacts to jurisdictional waters of the U.S. and demonstrate that water quality of Section 303(d) impaired streams is not further degraded as a direct result of this project and its associated indirect and cumulative impacts. Specific environmental commitments to protect air quality and water quality need to be included in the FEIS and ROD.</p>	<p><u>Air Quality:</u> USDOT made a conformity determination on the MUMPO and GUAMPO 2035 LRTPs and TIPs on May 3, 2010.</p> <p>As discussed in Section 2.5.2.2, the current refined preliminary design for the Preferred Alternative was not completely consistent with the project’s concept and scope included in the travel demand model used for the May 3, 2010 conformity determination. After the May 3, 2010 conformity determination made by the USDOT, the GUAMPO prepared an amendment to the <i>2035 LRTP</i> and <i>2009-2015 TIP</i> so that the project design concept and scope included in the LRTP and TIP is consistent with the Preferred Alternative. GUAMPO made a conformity determination on the amended <i>2035 LRTP</i> and <i>2009-2015 TIP</i> on August 24, 2010. USDOT issued a conformity determination on the amendments on October 5, 2010. A copy of the USDOT letter is included in Appendix K of this Final EIS.</p> <p><u>Water Quality:</u> The NCTA must obtain a 401 Water Quality Certification from the NC Department of Environment and Natural Resources Division of Water Quality (NCDWQ) and a Section 404 Permit from the US Army Corps of Engineers prior to project construction and will meet all requirements for these permits. Additional opportunities for avoidance and minimization for the Preferred Alternative were discussed with the environmental resource and regulatory agencies on February 16, 2010, and Concurrence Point 4a (avoidance and minimization) was achieved (Appendix G of the Final EIS includes the Concurrence Point 4a form). Proposed</p>

Appendix B1 – Agency Comments

Table B1-15: US EPA Region 4 Atlanta Federal Center

Document: a015 letter dated July 17, 2009

COMMENT NO.	PRIMARY TOPIC	COMMENT	RESPONSE
			design changes to the Preferred Alternative that minimize impacts to wetlands and streams are discussed in Section 2.3 of the Final EIS. <u>Indirect and Cumulative Effects:</u> A quantitative indirect and cumulative effects assessment was conducted for the Preferred Alternative and is summarized in Section 2.5.5 of the Final EIS.
4	Information Noted	EPA staff, including Mr. Christopher Militscher and Ms. Kathy Matthews of EPA's Wetlands Section will continue to work with you and FHWA and other agencies on the continued environmental coordination and Merger 01 process activities for this project.	Comment acknowledged. The USEPA has participated in the Turnpike Environmental Agency Coordination meetings held subsequent to the Draft EIS.
5	Purpose and Need for Action	The DEIS references and includes the May 21, 2007, letter between NCTA and NCDOT regarding the decision by the State transportation agencies to study only toll alternatives in the EIS. EPA does not believe that this is consistent with the Council on Environmental Quality (CEQ) regulations at 40 CFR Section 1502.14(a) and (c). The Gaston East-West Connector's new location corridors and preliminary study alternatives (utilized by NCTA and included in the DEIS) were developed by the NCDOT when it was proposed as a freeway. FHWA, as the Lead Federal Agency (LFA) under NEPA, might have also considered a comparison of a toll facility with a 'freeway' and their resultant environmental impacts.	The regulations at 40 CFR 1502.14(a) and (c) are: "In this section agencies shall: (a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated; (c) Include reasonable alternatives not within the jurisdiction of the lead agency." Alternatives for the project were rigorously explored and evaluated, as documented in the <i>Addendum to the Final Alternatives Development and Evaluation Report for the Gaston East-West Connector</i> (October 2008) and summarized in Chapter 2 of the Draft EIS. A Mass Transit Alternative, which would not be within the jurisdiction of the FHWA nor NCTA, was included in the evaluation. Environmental resource and regulatory agencies signed a concurrence form (CP 2) in October 2008 concurring with the Detailed Study Alternatives identified for the project. The current NCDOT 2009 - 2015 State Transportation Improvement Program (STIP) includes the project as a toll facility, and traditional (non-toll) transportation funding for this project is not likely in the foreseeable future. GUAMPO, as part of the metropolitan planning process, has decided to allocate the limited available federal and state funds to other projects. Both the GUAMPO and MUMPO 2035 LRTPs include the project as a toll facility. Based on preliminary traffic and revenue forecasts, the NCTA determined that the Gaston East-West Connector is financially feasible under a financing plan that includes the collection of tolls. Using tolls, the NCTA can provide the funding and construct the project many years earlier than with traditional funding sources.
6	Purpose and Need for Action	EPA notes that the Mecklenburg-Union Metropolitan Planning Organization (MUMPO) has identified sections east of the Catawba River for the Gaston East-West Connector in its Draft 2035 Long-Range Transportation Plan (LRTP). MUMPO on its Draft 2035 LRTP Roadway Ranking Priority List assigned rankings of 85, 327, 329 and 330 (out of approximately 340 total projects) for the sections where the Gaston East-West Connector is located in Mecklenburg County.	Approximately 90 percent of the 21.9-mile Preferred Alternative is located in Gaston County, and approximately 10 percent is located in Mecklenburg County. The Gaston Urban Area MPO's final priority list ranks in the 2035 LRTP the Garden Parkway as number 1. MUMPO's priority list for the 2035 LRTP includes the Garden Parkway from I-485 to the Gaston County line as number 243 of 300 projects listed.

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7	Land Use and Transportation Planning	EPA notes the Gaston County Future Land Use Map at Figure 1-11. A description of the 'Green Necklace' is not provided and it is noted that there are potentially substantial land use conflicts associated with this plan (e.g., Potential Industrial/Business Park north of Crowder Mountain State Park).	The Gaston County Future Land Use Map in Figure 1-11 was included in the Draft EIS to show the County's general plans for growth in southern Gaston County and also to show that the Gaston East-West Connector (Garden Parkway) is being considered in the land use planning activities of the county. The "Green Necklace" is a general concept for establishing greenway connections across the county. Greenway connections through the potential business park north of Crowders Mountain State Park are not necessarily a conflicting land use. A detailed description of the "Green Necklace" was not necessary in these contexts.
8	Purpose and Need for Action	The DEIS includes detailed information regarding traffic volumes and operations for the project study area's major roadways, including I-85, US 29-74, and US 321. ...The DEIS tables also identify 2006 and 2030 traffic volumes (in Annual Average Daily Traffic- AADT) along the various major roadways as well as their corresponding segments. In nearly all cases, NCTA and FHWA are projecting significant traffic volume increases along I-85, US 29-74, and US 321 in the design year. For example, I-85 and US 29-74 are projected to have between approximately 30-50% increases in AADT by 2030. It is unclear from Section 1.6.2 of the DEIS what assumptions are being made by the planning organizations (GUAMPO and MUMPO) and transportation agencies in estimating future travel demand for these roadways and what development pressure and induced traffic will be added as a result of the new facility. The DEIS cites in several places, that the project study area is mostly suburban and rural in character. EPA notes the estimated population change by U.S. Census block groups from 1990 to 2000 in Figure 3-2.	Traffic forecasts prepared for the project purpose and need are described in a separate technical memorandum, <i>Gaston East-West Connector (U-3321) Traffic Forecast for Toll Alternatives</i> (August 2008), incorporated by reference into the Draft EIS. The Metrolina Regional Model was used to forecast traffic for the 2006 base year and the 2030 design year No-Build Alternative. This model, provided by the Charlotte Department of Transportation, covers a thirteen-county region including Gaston County and Mecklenburg County. Information on assumptions used in the Metrolina Regional Model can be accessed at the MPO's website: www.mumpo.org/2030_LRTP.htm . Regional statistics from the 2030 Metrolina Regional Model for Gaston County are discussed in detail in Section C.1.2 of Appendix C in the Draft EIS. The effects of introducing a new crossing of the Catawba River are described. The text on page C-4 states the main variable in the Metrolina Regional Model affecting trips in the project area is travel time. In general, the total number of trips changes very little between the alternatives modeled using the Metrolina model; however, their destinations are different, resulting in more vehicle miles traveled with a New Location Alternative (Toll Scenario) compared to the No-Build Alternative. A desirable destination that may have required a 20-mile, 35-minute trip might now be no more than a 3-mile drive requiring less than 10 minutes, and a traveler would then make this trip under the New Location Alternative, when otherwise he or she would not have made the trip.
9	Community Characteristics and Resources	The DEIS also includes information on minority and low-income demographic information which is depicted in Figures 3-3, 3-4 and 3-5. One of EPA's past and continued concerns has been the construction of a toll facility in an area where there are many block groups characterized as minority and low-income.	Environmental justice issues are discussed in Section 3.2.5 of the Draft EIS. As stated in this section, FHWA, NCTA, and NCDOT determined that none of the DSAs are expected to have disproportionately high and adverse impacts to low-income and/or minority populations.
10	Alternatives Considered	Page 2-4 of the DEIS states: "Initially, the First Screening focused on the ability to meet Purpose and Need. Several alternatives were eliminated largely or entirely based on their inability to meet the Purpose and Need (TSM, TDM, Mass transit, Multi-modal)." EPA was a concurring agency to carry forward the twelve (12) DSAs. However, the DEIS does not	The Draft EIS rigorously explored and objectively evaluated a range of reasonable alternatives as required by 23 CFR 771.123(c). For those alternatives that were eliminated from detailed study, brief discussions of the reasons were included. Section 2.2.5.2 of the Draft EIS discusses multimodal alternatives. These are defined as alternatives that include the Mass Transit Alternative together with improvements

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		<p>specifically address how a combination of alternatives as referenced above with other transportation improvements to existing major roadways might be able to meet the Purpose and Need. EPA does not agree with the conclusions regarding the mass transit alternative on pages 2-8 and 2-9. NCTA's and FHWA's preferred alternative DSA 9 has an estimated median cost of \$1.282 billion. A primary rationale provided in the DEIS for eliminating the mass transit alternative (e.g., Light rail), is the estimated cost of 'at least \$1.06 billion' for a 22-mile new location rail system. EPA notes the following key statement regarding mass transit on new location: "In addition, there is no program currently in place within North Carolina or in Gaston County to fund such improvements." The DEIS continues to state that the lack of financial feasibility is an additional reason for finding that this alternative is not a reasonable alternative. EPA requested in its March 1, 2007, letter that combinations of alternatives also be further studied and analyzed in the DEIS. Referring to CEQ regulations 40 CFR Section 1502. 14(c), FHW A and NCTA might have considered partnering with the Federal Transit Authority (FTA) to evaluate a combination of alternatives that could potentially meet the project purpose and need. From a public disclosure and analysis standpoint EPA believes that for the eastern portions of the project study area a mass transit alternative is still potentially a 'reasonable' alternative under NEPA in combination with other new location and improve existing options.</p>	<p>to existing roadways. The roadway improvements could include those described for the TSM Alternative or those described for the Improve Existing Roadway Alternatives. The multimodal alternative was considered in two ways in the Draft EIS: a version that includes improvements to transit and roadways along existing facilities and a version that includes improvements to existing roadways and transit on new location. As noted, the Concurrence Point 2 form which identifies the signatories' concurrence with the Detailed Study Alternatives was signed by the environmental resource and regulatory agencies (including the USEPA) on October 7, 2008. The primary reason for eliminating multimodal alternatives was their inability to meet the project's purpose and need, as documented in the Draft EIS. The lack of financial feasibility was noted in Section 2.2.5.2 of the Draft EIS as an additional reason for finding that these alternatives were not reasonable alternatives.</p>
11	Water Resources	<p>EPA acknowledges that the FHWA and NCTA's recommended (preferred) alternative is DSA 9 and that it has lower wetland and stream impacts than many of the other alternatives considered (with the exception of DSA 68 and 81 for stream impacts). ...Based upon tracking records that EPA began in 2002, the proposed project would have 2,237.2 linear feet of stream impact per mile of multi lane new location facility. This is more than double the State-wide average of approximately 1,000 linear feet for a Piedmont or western North Carolina project and potentially the highest impact per mile of any Merger project since 2002. DSA 9 also includes 91 total stream crossings. EPA considers the direct impacts to waters of the U.S. to be very significant.</p>	<p>Avoidance and minimization measures were incorporated into the preliminary engineering designs for the DSAs, as summarized in Section 6.4.5.3 of the Draft EIS. These measures were discussed with the environmental resource and regulatory agencies at Turnpike Environmental Agency Coordination (TEAC) meetings on February 5, March 4, and April 8, 2008.</p> <p>Section 2.3.3 of the Final EIS describes additional avoidance and minimization measures that resulted in an approximate 25 percent reduction in stream impacts (2.36 miles) and an approximate 6 percent reduction in wetland impacts (0.4 acre). The refined preliminary design would have an average of 1,600 linear feet of stream impact per mile of new location facility.</p> <p>A Conceptual Mitigation Plan for the Preferred Alternative, which includes discussion of on-site mitigation prospects, is summarized in Section 2.5.4.4 of the Final EIS. NCTA has also received agreement from EEP to provide compensatory mitigation through the in-lieu fee program.</p>

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12	Land Use and Transportation Planning	<p>The DEIS does not fully address EPA's comments from the March 1, 2007, scoping letter concerning the need to fully consider and address the number and associated impacts for free flowing interchanges and toll collection facilities. EPA requested that full consideration be given to using single point urban interchanges (SPUI) and compressed cloverleaf designs at grade separated locations. The DEIS on page 2-50 discusses the option of removing the intersection at the US 29-74 interchange (depicted on Figures 2-9 d & e) from the project design, but there is no formal conclusion reached on the issue. EPA requested during past Merger meetings that due to the traffic volumes and resources in the area, serious consideration be given to eliminating this interchange. A SPUI or other compressed interchange design might have also reduced stream and wetland impacts at the Robinson Road interchange (Figure 2-9q), Bud Wilson Road interchange (Figure 2-9s), Bradley Trail interchange (Figure 2-9u), NC 273 interchange (Figure 2-9cc) and the 1-485 Interchange (Figures 2-9gg, hh and ii). EPA recognizes the different interchange designs shown in the aforementioned figures. However, the DEIS does not contain a specific discussion or analysis as to the types of interchanges examined. Section 6.4.5.3 under 'Avoidance and Minimization' states that the 'presence of wetlands and streams and minimizing or avoiding impacts to these resources was a factor in considering interchange configurations'. However, there is no detailed discussion as to how important these resources were considered and if SPUIs or other compressed cloverleaf designs were given full consideration. From previous Merger meeting discussions, EPA staff commented that 'high-speed' to 'high-speed' interchange and ramp designs were not necessarily needed at all the potential interchange locations and that 'low-speed' connections at secondary roads should be considered.</p>	<p>For the preliminary engineering designs, the interchange forms considered for each interchange are documented in the <i>Final Traffic Operations Technical Memorandum for the Gaston East-West Connector</i> (December 2007), incorporated by reference into the Draft EIS. For the preliminary engineering designs documented in the Draft EIS, interchanges were designed to NCDOT standards to identify ultimate potential impacts associated with the roadway. The proposed project includes high-speed to high-speed interchanges only at I-85 and I-485. All other interchanges are service interchanges with traffic signals or stop signs where the ramps intersect the cross street.</p> <p>In accordance with standard procedures, further minimization occurred after the Draft EIS, through coordination with the environmental resource and regulatory agencies for the NEPA/404 Merger process Concurrence Point 4a. Section 2.3 of the Final EIS describes the design changes made to the Preferred Alternative. The median width was reduced, as well as the footprints for the interchanges at Robinson Road, NC 274 (Union Road), NC 273 (Southpoint Road), and I-485. The Bud Wilson Rd interchange was eliminated. For the US 29-74 interchange, the Draft EIS stated that a decision on this interchange would occur after the Draft EIS and reported in the Final EIS. As discussed in Section 2.3.1.3 of the Final EIS, this interchange is retained. Many of the design refinements result in substantial reductions in impacts to jurisdictional resources, as listed in Section 2.3.3. Additional opportunities for minimization and cost reduction will occur during the final design phase of the project.</p>
13	Water Resources	<p>The DEIS does not provide details as to how and to what degree the DSAs incorporate measures to avoid and minimize impacts to jurisdictional waters. EPA does recognize the CP 2A bridge field review meeting on avoidance and minimization efforts conducted in December of 2007. EPA technical staff were directly involved in these field investigations. However, direct impacts to existing 303(d) listed impaired streams and other waters at risk from further degradation have not been fully addressed from the standpoint of avoidance and minimization (e.g., proposed median width of 70 feet, 300-foot minimum right of way, 12-foot paved outside shoulders, etc.).</p>	<p>See response to Comment 12 in USEPA's letter (Document a015).</p>

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14	Water Resources	The DEIS does not address our comments on pages 4 and 5 of our March 1, 2007, scoping letter, recommending that NCTA and FHWA provide a conceptual plan in the DEIS which includes opportunities for on-site mitigation. The preferred alternative has approximately 7.5 acres of jurisdictional wetland impacts and 48,995 linear feet of total stream impact. There is no detail provided in the DEIS if there is adequate on-site or off-site mitigation available in the HUC. Although mitigation is discussed in Section 6.4.5.4, no details are provided. Also in this section, the DEIS includes a short statement about off-site mitigation. The paragraph mentions the Memorandum of Agreement (MOA) between NC Department of Transportation (DOT) and the Ecosystem Enhancement Program (EEP). It is unclear whether NCTA is subject to the DOT/EEP MOA (in which case, it is likely that mitigation plans are already underway for these impacts), or if NCTA will pay into the traditional in-lieu fee program run by EEP under a Memorandum of Understanding (MOU) with NC Department of Natural Resources and the Corps. Under the MOU program, EEP may not have any mitigation planned until after NCTA provides payment, typically after the permit is issued. The FEIS should clearly state which program NCTA will utilize for wetland and stream mitigation. EPA recommends that NCTA identify conceptual on-site mitigation opportunities in the FEIS. The Corps and NCDWQ may require mitigation for all intermittent as well as perennial streams. EPA recommends that NCTA propose compensatory mitigation for all impacts to jurisdictional-resources. The lack of a conceptual mitigation plan for impacts to jurisdictional waters of the U.S. is a significant deficiency in this DEIS.	A conceptual mitigation plan was prepared for the Preferred Alternative, as summarized in Section 2.5.4.4 of the Final EIS. The conceptual mitigation plan discusses both off-site and potential on-site mitigation opportunities. For off-site mitigation, NCTA has received agreement from EEP to provide compensatory mitigation through the in-lieu fee program.
15	Indirect and Cumulative Effects	In the March 1, 2007 letter, EPA also requested that FHWA and NCTA explore methods to directly address mitigation for indirect and cumulative effects of the proposed project, including long-term impacts to water quality. The DEIS has no specific discussion of mitigation for indirect and cumulative effects.	In accordance with NCDOT procedure, a qualitative Indirect and Cumulative Effects Assessment was completed and summarized in Chapter 7 of the Draft EIS. Several comments on the Draft EIS requested that a quantitative indirect and cumulative analysis be performed. An Indirect and Cumulative Effects Quantitative Assessment was prepared for the Preferred Alternative and summarized in Section 2.5.5 of the Final EIS. A discussion of mitigation is included. Prior to commencement of this study, scoping with the environmental resource and regulatory agencies was conducted to ensure the study approach and scope met the expectations of the agencies. The water quality modeling portion of the quantitative assessment will be conducted as part of the permitting phase of the project.
16	Water Resources	EPA is concerned that although we specifically identified significant issues with the use of the North Carolina Wetlands Ratings System (WRS) on this project (forested wetlands labeled as emergent wetlands, forested	Appendices D, E, F, and G of the <i>Natural Resources Technical Memorandum</i> (Earth Tech, Inc., February 2008) for the project include stream identification forms and wetlands rating worksheets. These forms were deemed appropriate by the

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		wetlands adjacent to streams receiving a rating of zero from at least one of the consultant teams), NCTA continues to rely on the WRS scores to describe the wetlands that may be impacted. NCTA should complete a North Carolina Wetland Assessment Method (NCWAM) assessment on all wetland impact sites for the recommended alternative and present the information in the FEIS. EPA does not believe that the WRS provides meaningful information for wetlands permitting decisions.	permitting agencies (US Army Corps of Engineers and the NCDWQ), which also determined that the NCWAM forms are not required for the Gaston East-West Connector project.
17	Land Use and Transportation Planning	In Section 6 of the DEIS, there is a discussion concerning the soils within the project area and states that the entire area underlain by the project is rated moderate or severe for road construction, and may require "special planning, design or maintenance to overcome soil limitations." However, EPA could find no discussion regarding the need for potential borrow sites, and the potential impacts to uplands, wetlands, and streams from these borrow pits. If borrow sites will be necessary, the FEIS should fully explore the amount of borrow needed and potential impacts (quantitative) to natural areas, including terrestrial areas, wetlands, and streams.	At the time of the Final EIS, it is not possible to determine whether the project will result in the need for fill or if it will result in excess fill. Final earthwork balancing will occur during final design, after the Final EIS. The contractor will be responsible for obtaining fill, if needed, in accordance with all applicable laws and regulations.
18	Water Resources	The DEIS provides no information on specific actions that NCTA will take to avoid and minimize impacts (direct and indirect) to 303(d) listed impaired streams. Local ordinances, riparian buffer rules and implementation of past stormwater control initiatives have not proven to be successful in addressing these continued developmental impacts. Moreover, the recommended alternative will directly impact approximately 7.5 acres of jurisdictional wetlands and 48,995 linear feet (approximately 9.3 miles) of streams. Riparian buffers are not specifically protected in many parts of the project study area. NCTA should commit to provide adequate methods of stormwater treatment to remove pollutants and sediment, during construction and afterward.....EPA believes that efforts greater than the typical BMP requirements may be necessary. EPA believes that typical sediment and erosion control and stormwater management control and Best Management Practices (BMPs) in the Piedmont have not shown to be very effective based upon NCDOT studies commissioned with the North Carolina State University's Department of Biological and Agricultural Engineering.....NCTA and FHWA should commit to providing the most aggressive methods of sediment and erosion control and stormwater treatment to remove pollutants and sediment, during construction and afterwards.	Avoidance and minimization measures were incorporated into the preliminary engineering designs for the DSAs, as summarized in Section 6.4.5.3 of the Draft EIS. These measures were discussed with the environmental resource and regulatory agencies at Turnpike Environmental Agency Coordination (TEAC) meetings on February 5, March 4, and April 8, 2008. In addition, avoidance and minimization measures for the Preferred Alternative were discussed with agencies on February 16, 2010, and NEPA/404 Merger process Concurrence Point 4a was achieved (see form in Appendix G of the Final EIS). Section 2.3.3 of the Final EIS describes additional avoidance and minimization measures that resulted in an approximate 25 percent reduction in stream impacts (2.36 miles) and an approximate 6 percent reduction in wetland impacts (0.4 acre). Prior to construction, an erosion and sedimentation plan would be developed for the Preferred Alternative in accordance with applicable rules, regulations and guidance, including the NCDENR publication <i>Erosion and Sediment Control Planning and Design</i> (June 2006) and NCDOT's <i>Best Management Practices for Protection of Surface Waters</i> . NCTA will coordinate with NCDWQ to obtain the Section 401 Water Quality Certification. NCTA will incorporate into the project design appropriate BMPs from NCDOT's toolbox approved in January 2007 by NCDWQ for stormwater runoff.

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19	Water Resources	Specifically, NCTA and FHWA should at a minimum make environmental commitments to provide methods such as wet ponds, created stormwater wetlands, infiltration trenches and wells, sand filters, temporary and permanent retention ponds, level spreaders, retaining walls to reduce fill impacts from steep slopes, and reinforced grassed-swales. During construction, NCTA and FHWA should also restrict clearing and grubbing to the maximum extent possible. More effective soil erosion and turbidity control measures researched by NCDOT and NCSU including Polyacrylamide (PAM), coconut fiber logs, and absorbent wattles should be incorporated into the soil and erosion control plan and included as an environmental commitment (Note: these more costly measures have been shown to drastically reduce turbidity and sedimentation during construction). Permanent stormwater measures (including detention basins/hazardous spill catch basins) should be planned and designed within the proposed facility's right of way to address future development runoff and hydrologic trespass from off-site sources such as residential and commercial developments, toll collection facilities, and parking lots. NCTA and FHWA should consider the use of hazardous spill catch basins/stormwater basins at key locations, including 303(d) listed streams that are already impaired from urban runoff and pollutants.	NCTA and FHWA will implement sediment and erosion control Best Management Practices in accordance with <i>applicable rules, regulations, and guidance</i> . Final designs will incorporate hazardous spill basins along the project corridor where appropriate in accordance with NCDOT's <i>Best Management Practices for Protection of Surface Waters, Guidelines for the Location and Design of Hazardous Spill Basins, and Guidelines for Drainage Studies and Hydraulic Design</i> . NCTA will coordinate with NCDWQ to obtain the Section 401 Water Quality Certification.
20	Indirect and Cumulative Effects	EPA, as well as other agencies, previously requested that FHWA and NCTA explore methods to directly address mitigation for indirect and cumulative effects of the proposed project, including long-term impacts to water quality. FHWA and NCTA are not proposing any mitigation for indirect and cumulative impacts to water quality.	An Indirect and Cumulative Effects Quantitative Assessment was prepared for the Preferred Alternative and summarized in Section 2.5.5 of the Final EIS. Mitigation measures in relation to indirect and cumulative effects are discussed in Section 2.5.5.9 . As stated in this section, with respect to mitigation for indirect and cumulative effects related to land use change, both the NCDOT ICE Guidance and FHWA <i>Interim Guidance</i> note that it is necessary to identify mitigation actions beyond the control of the transportation agencies. While such mitigation cannot be committed to be implemented as part of the project, the purpose of identifying the mitigation is to inform the affected local jurisdictions and other reviewers of the EIS. Mitigation for the indirect and cumulative effects on land use, water resources and tree cover identified by this study could be reduced in magnitude through implementation and enforcement of the planning strategies listed in Section 2.5.5.9 . The water quality modeling portion of the quantitative assessment will be conducted as part of the permitting phase of the project. Further coordination with NCDWQ

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			will be conducted with regard to the Section 401 Water Quality Certification and the measures needed to be implemented in order to obtain the certification.
21	Indirect and Cumulative Effects	<p>In the March 1, 2007, scoping letter, EPA also requested that FHWA and NCTA perform a quantitative Indirect and Cumulative Impacts (ICI) analysis for this proposed project. The DEIS does state (i.e., page 7-2) that a quantitative assessment would be conducted on the preferred alternative following the DEIS, if FHWA and NCTA determine that a quantitative analysis is needed. However, the ICI in the DEIS is only qualitative, and does not provide meaningful information concerning potential impacts to wetlands, streams, water quality, air quality, and endangered species. The Indirect and Cumulative Effects Section (Section 7) of the DEIS is not specific, and provides no quantitative data to characterize the existing conditions in the project area (such as percent land use by commercial, agriculture, etc.). There are no quantitative data presented in the DEIS concerning potential indirect and cumulative impacts to wetlands, streams, water quality, and wildlife habitat. In general, the indirect and cumulative effects to water quality are not adequately addressed by the DEIS. Section 6.2.4 (page 6.9) states that indirect and cumulative effects to water quality are discussed in Section 7.5. However, Section 7.5 (page 7-13) states that indirect and cumulative effects are discussed in Section 6.2.4. Neither section fully or adequately addresses the issue. The ICI simply states that cumulative effects can be minimized through implementation of local stormwater ordinances and BMPs. However, local ordinances and implementation of stormwater control initiatives in the past have not proven to be successful in addressing these continued development conditions. EPA continues to recommend that the NCTA develop a quantitative analysis of the indirect and cumulative impacts from the proposed project and recommend appropriate avoidance, minimization and mitigation measures for the anticipated impacts.</p>	<p>Regarding the Quantitative ICE, see response to Comment 15 in USEPA’s letter (Document a015). Regarding BMPs, see response to Comment 18 in USEPA’s letter (Document a015).</p>
22	Indirect and Cumulative Effects	<p>The FEIS should include more quantitative data on existing conditions and potential impacts to wetlands, streams, water quality, and wildlife habitat from the 'No Build Alternative' and the Preferred Alternative. Existing land use may be estimated using the NWI data or other GIS wetland data and the USGS's North Carolina GAP Analysis Project's land use coverage map. There are also many useful GIS data layers at NC One Map. The FEIS should calculate the acreage of induced growth from the Preferred Alternative, using the No Build as a baseline. The FEIS should also</p>	<p>See response to Comment 15 in USEPA’s letter (Document a015).</p>

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		<p>calculate the cumulative amount of potential impervious surfaces added and cumulative increase in percent impervious surface for each watershed resulting from the project and other reasonably foreseeable activities. ...</p> <p>At a minimum, the FEIS should list known areas of impacts (recent and future TIP projects with projected impacts and other permitted or planned activities) along with the estimated amounts and a total estimated impact for each watershed. Further, the water quality impacts could also be estimated using the FHWA's "Constituents of Highway Runoff" to estimate the amount of pollutant that would enter streams after a twenty-day buildup period, assuming there were no structures such as retention basins or ditches to filter sediment. It is understood that stormwater requirements must be met, and that avoidance and minimization efforts may reduce the amount of estimated wetland and stream impacts. It is also understood that the quantitative information is an estimate, and may provide a worst-case scenario. However, the FEIS should provide as much quantitative information as possible.</p>	
23	Air Quality	<p>EPA notes the special project commitment ("Green Sheet") regarding air quality and that NCTA will coordinate with GUAMPO and MUMPO to ensure that the air quality conformity determination for the region includes the project's design concept and scope consistent with the 'preferred alternative' prior to the Record of Decision (ROD).</p>	<p>The 2035 LRTPs for GUAMPO and MUMPO include the proposed project as a toll facility. USDOT made a conformity determination on the LRTPs and TIPs on May 3, 2010. A copy of this letter, along with USEPA's April 22, 2010 review, can be found in Appendix K of this Final EIS.</p> <p>As discussed in Section 2.5.2.2, the current refined preliminary design for the Preferred Alternative was not completely consistent with the project's concept and scope included in the travel demand model used for the May 3, 2010 conformity determination. After the May 3, 2010 conformity determination made by the USDOT, the GUAMPO prepared an amendment to the <i>2035 LRTP</i> and <i>2009-2015 TIP</i> so that the project design concept and scope included in the LRTP and TIP is consistent with the Preferred Alternative. GUAMPO made a conformity determination on the amended <i>2035 LRTP</i> and <i>2009-2015 TIP</i> on August 24, 2010. USDOT issued a conformity determination on the amendments on October 5, 2010. A copy of the USDOT letter is included in Appendix K of this Final EIS.</p>
24	Air Quality	<p>EPA believes that vehicle miles traveled (VMTs) will substantially increase from the proposed action, particularly in the Gaston County area. EPA further concurs with NCTA and FHWA that the proposed action will significantly induce {"accelerate"} development within the project study area. Increased development further from Charlotte and other more urbanized areas will invariably increase vehicle commutation distances and result in increased air pollution emissions. Any congestion management relief along I-85 and other east-west routes will be</p>	<p>Table C-1 in Appendix C of the Draft EIS lists year 2030 regional travel demand model statistics for Gaston County under various build and no-build project scenarios. As shown in the table, year 2030 vehicle miles traveled (VMTs) are projected to be greater for the New Location Toll Alternative scenario than for the No-Build Alternative. However, it should also be noted that other build scenarios evaluated (Improve Existing Roadways and New Location Non-Toll Alternatives) were projected to have higher VMTs than the New Location Toll Alternative. As noted in USEPA's Comment 22, the October 5, 2010, air quality conformity determination for the</p>

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		potentially offset by increased 'development sprawl', greater VMTs in the project study area and, ultimately, increased air pollution emissions.	Metrolina region includes the project's design concept and scope consistent with the Preferred Alternative. Air quality conformity issues are discussed in the Final EIS in Section 2.5.2.2 . <i>A Quantitative Indirect and Cumulative Effects Analysis</i> was prepared for the Preferred Alternative, as summarized in Section 2.5.5 of the Final EIS. This study estimates the land use changes that would occur with the project in place compared to the No-Build scenario.
25	Air Quality	Please refer to Appendix A-8 of the DEIS, which includes EPA's letters of November 17, 2008, and January 9, 2009, on the State Implementation Plan (SIP). <u>We wish to emphasize that EPA issued a Final Rule in the Federal Register on May 8, 2009, for the 'Finding of Failure to Submit State Implementation Plans Required for the 1997 8-Hour Ozone National Ambient Air Quality Standard: North Carolina and South Carolina.</u>	Air quality conformity is discussed in Section 4.2.2 of the Draft EIS, and is updated in Section 2.5.2.2 of the Final EIS. Also, see response to Comment 23 in USEPA's letter (Document a015).
26	Air Quality	Referring to EPA's previous letters on the SIP and transportation conformity, EPA believes that it is highly improbable that the Charlotte area will be able to retain its moderate non-attainment status for the 8-hour ozone that is required by June 15, 2010. One of the primary reasons for the "Environmental Objections" rating for the preferred DSA D alternative is where an action might violate or be inconsistent with achievement for maintenance of a national environmental standard. Under EPA's policy and procedures under Section 309 of the CAA and NEPA, the threshold for rating the environmental impact of the proposed action is based not only on the potential likelihood to violate a national environmental standard, but also on the proposed mitigation for the project and if that mitigation is adequate to address the potential and significant environmental impacts. NCTA and FHWA did not propose any air quality related mitigation to address the potential direct impact from this 22-mile, new location toll facility or its indirect and cumulative effects. Until the issues involving the SIP, LRTP update, TIP and conformity demonstration are fully resolved, EPA believes that this new location project will continue the pattern of development sprawl in the Charlotte/Metrolina area and further result in air quality degradation and future potential violations of the CAA's 8-hour ozone standard. EPA concurs with NCTA and FHWA that this new location facility will most likely induce development in the project study area. However, EPA does not agree with NCTA and FHWA conclusion that this induced development will not ultimately result in an increase of the VMTs due to the construction of the new location roadway. Our environmental objection rating includes other new location alternatives (DSAs) as well.	See response to Comments 23 and 24 in USEPA's letter (Document a015).

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27	Air Quality	EPA has reviewed the Mobile Source Air Toxics (MSATs) sections contained at 4.2.3, and Appendix H. EPA acknowledges that a more detailed qualitative analysis was provided in the DEIS. The DEIS states that there is an approximate 12% increase (for Gaston County) in VMTs for the new location alternatives versus the 'No Build Alternative'. However, EPA does not concur with the general regional assessment provided in Section 4.2.3 or Appendix H. EPA does concur with the statement provided on Page H-8 of the DEIS: <i>"In summary, under all DSAs in the design year, it is expected that there will be higher MSAT emissions in the immediate project area, relative to the No Build Alternative, due to increased VMT."</i> EPA's recent technical comments concerning MSATs for the Monroe Bypass/Connector project apply to this project as well. The qualitative analysis provided in the DEIS considers MSATs to be a regional air quality issue and does not address the specific environmental concerns for potential near-roadway exposures to increases in MSATs.	The NCTA used the methodology in FHWA's Interim Guidance on Air Toxic Analysis in NEPA Documents (February 3, 2006) for MSAT analysis, in coordination with FHWA NC Division. The analysis is summarized in the Draft EIS Sections 4.2.3 and 4.2.5.2 and Appendix H. The overall approach applied in the MSAT guidance characterizes the trend in MSAT emissions and the difference in MSAT emissions between alternatives, but does not attempt to characterize health risks or microscale impacts, due to the uncertainty associated with available analysis tools. The FHWA's MSAT guidance was updated on September 30, 2009. This updated guidance, which includes updates on MSAT research, is discussed in Section 2.5.2.2 of the Final EIS. As stated in the updated guidance (page 5), "air toxics analysis is an emerging field and current scientific techniques, tools, and data are not sufficient to accurately estimate human health impacts that would result from a transportation project in a way that would be useful to decision-makers." The updated guidance does not change the conclusions and results regarding MSATs related to the proposed project that are reported in the Draft EIS.
28	Air Quality	The DEIS does not identify any 'local control measures' for MSATs in the project study area. FHWA has asserted that MSATs cannot be accurately modeled and the health effects accurately predicted. EPA requests that FHWA provide the identification of 'local control measures' and how these measures could be assessed against 'uncertain health effects'. Again, please refer to EPA's letter dated June 15, 2009, concerning MSATs and the specific measures to reduce emissions during construction and for the final project design.	The NCTA used the methodology in FHWA's Interim Guidance on Air Toxic Analysis in NEPA Documents (February 3, 2006) for MSAT analysis, in coordination with FHWA NC Division. The analysis is summarized in the Draft EIS Sections 4.2.3 and 4.2.5.2 and Appendix H. The overall approach applied in the MSAT guidance characterizes the trend in MSAT emissions and the difference in MSAT emissions between alternatives, but does not attempt to characterize health risks or microscale impacts, due to the uncertainty associated with available analysis tools. In late 2007, the US District Court in the Southern District of Maryland upheld this approach in ruling on a challenge to the Inter-County Connector project, stating that "the Defendants' methodology was reasonable and should be upheld . . . Defendant's failure to consider Plaintiffs' approach to the health effects analysis, which could be ascertained, if at all, only through uncertain modeling techniques, did not preclude informed decision-making under NEPA." The FHWA's MSAT guidance was updated on September 30, 2009. This updated guidance, which includes updates on MSAT research, is discussed in Section 2.5.2.2 of the Final EIS. The updated guidance does not change the conclusions and results regarding MSATs related to the proposed project that are reported in the Draft EIS.
29	Air Quality	The DEIS does identify 4 public schools (Section 2.3.1.4 and Figure 3-7a-b) located near the boundaries of the DSA corridors and no other potential sensitive receptors. Considering the 10,000 to 61,800 AADTs on the new facility and that this is potentially a 'new emission source', the development of a finite period monitoring program would not be inconsistent with other past FHWA actions regarding MSATs. Furthermore, direct data collection by FHWA would address some of the	The MSAT analysis summarized in the Draft EIS was conducted in accordance with the Federal Highway Administration <i>Interim Guidance on Air Toxic Analysis in NEPA Documents</i> dated February 3, 2006. This guidance, and the updated guidance dated September 30, 2009, do not call for analysis of the health effects of MSATs from transportation projects. Monitoring of MSAT emissions remains problematic for federally funded highway projects, and FHWA has only agreed to monitoring in a very limited way on past projects. The projected design year 2035 AADT (highest

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		<p>'uncertainty' that it has expressed in the modeling and baseline estimates for MSATs. There are numerous more recent, peer-reviewed and published health studies and the correlation with near roadway exposures to MSATs that have not been considered or cited in the DEIS. EPA recently provided examples of several local control measures for the Monroe Bypass/Connector project that are applicable for this proposed project as well.</p>	<p>value equals 69,300 vehicles per day) does not meet the criteria to place the project in the category of projects that require a quantitative MSAT analysis (generally >140,000 ADT). Final EIS Appendix D includes an updated discussion of MSATs.</p>
30	Community Characteristics and Resources	<p>Section 3.2.5.1 includes the primary issues of EJ under Executive Order 12898. Section 3.2.5.2 of the DEIS includes a discussion on EJ as it relates to the proposed project, including public involvement and outreach conducted by NCTA and FHWA. Table 3-7 provides a general evaluation for the proposed toll facility. EPA does not fully concur with this assessment provided on Pages 3-25 to 3-28. The minority and low-income communities in the project study area would receive the 'higher percent' of impact from the new facility in terms of air quality and noise impacts, but would not necessarily receive a proportionate benefit of access due to the potential toll costs. This evaluation generally considered direct relocation impacts to minority and low-income neighborhoods and did not fully consider the long-term air quality and noise impacts. Using existing 1-85 and other routes does not address the issue that minority and low-income persons would have to drive further and at greater cost than persons who would have access to the new toll facility. DSA 9, the preferred alternative, also has one of the highest percentages of minority relocations of all of the DSAs (26-28 % of the total number of residential relocations).</p>	<p>Environmental justice issues are discussed in Section 3.2.5 of the Draft EIS. As stated in Section 3.2.5 of the Draft EIS, any of the Gaston East-West Connector DSAs would provide a new, limited-access, east-west route in the region. Completing the project would benefit all motorists, including low-income motorists who may choose not to use the toll facility or may tend to use it less frequently.</p> <p>All travelers would still have the same access to the major existing roadways in the study area, including I-85, US 29-74, and US 321. If travelers choose to use existing routes, their travel distance would remain the same as it is today. Travel times may be slightly better on existing roadways with the Preferred Alternative since overall, as discussed in Appendix C of the Draft EIS, congested vehicle hours traveled and congested vehicle miles traveled in Gaston County are expected to be less in 2030 with the proposed project in place compared to the No-Build Alternative.</p> <p>Minorities comprise approximately 21 percent of the Demographic Study Area. Although the Preferred Alternative has one of the highest percentages of minority relocations (approximately 28 percent of the 344 relocations) it has neither the highest nor lowest total number of relocations (all DSAs ranged from 326 to 384 residences). The difference in percent minorities relocated compared to the Demographic Study Area minority population as a whole is not disproportionate. As discussed in Section 3.2.5.2 of the Draft EIS, many of the estimated minority relocations occur where the Preferred Alternative passes through an area of single family subdivisions along Shannon Bradley Road that have predominantly African-American residents (Matthews Acres and Spring Valley). The preliminary design of the Preferred Alternative and the other DSAs that use the same corridor in this area (DSAs 4 and 5) was developed to minimize relocation impacts to the extent practicable.</p> <p>DSA 9 was selected as the Preferred Alternative based upon the balance of impacts to a number of human, natural, cultural, and environmental resources, as discussed in detail in Section 2.2 of the Final EIS.</p> <p>Minority and low-income populations would not receive a disproportionate level of noise impacts. As discussed in more detail in Section 3.3.2.7 of the Final EIS, the percentages of residential receptors predicted to be impacted by project-related</p>

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			<p>traffic noise that are estimated to be minority or low-income are approximately the same as the percentages of minority populations and low-income populations within the Demographic Study Area as a whole. Therefore, there would be no disproportionately high and adverse noise effects to these populations.</p> <p>Air quality impacts from the Preferred Alternative are discussed in Section 2.5.2.2 of the Final EIS. On a regional basis, the Preferred Alternative is included in long range transportation plans found to be in conformity with the State Implementation Plan, which is the document that describes how North Carolina will maintain or achieve compliance with the National Ambient Air Quality Standards in non-attainment and maintenance areas. On a local basis, similar to potential traffic noise impacts, populations nearest the Preferred Alternative would have the highest potential to be affected by localized air quality impacts such as mobile source air toxics; and the same conclusions can be reached regarding general consideration of air quality effects. Which are, there would not be disproportionate air quality effects to minority populations or low-income populations because these populations do not comprise a disproportionate number of residents located in proximity to the Preferred Alternative.</p>
31	Noise	<p>Section 4.1 of the DEIS contains detailed information regarding potential noise receptor impacts. For DSA 9, there are an estimated 245 total number of impacted receptors using FHWA Noise Abatement Criteria. FHWA and NCTA are proposing 12 'feasible and reasonable' noise barriers that are 20,562 linear feet in total length that benefit approximately 169 impacted receptors for DSA 9. NCTA and FHWA are not proposing any other forms of potential noise abatement measures within the project study area such as different pavement types, reduced speed limits, earthen berms, or vegetative screens.</p>	<p>A variety of noise abatement measures were considered, as summarized in Section 4.1.6 of the DEIS. However, due to design constraints, access and space requirements, and cost considerations, noise barriers were found to be the only feasible method of abatement. Earthen berms may be considered by the design-build team, as they can provide the same noise reductions as noise barriers. However, earthen berms require more space, and therefore may require more right of way.</p>

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32	Farmland	Section 4.3.4 of the DEIS describes Farmland Impacts. It should be noted that <u>North Carolina lost more than 600,000 acres of farmland from 2002-2007</u> according to a recent census by the U.S. Census of Agriculture. Also in this period, North Carolina lost approximately 1,000 individual farms. A more recent U.S. Department of Agriculture report in 2007 showed that North Carolina lost 1,000 farms in 2006 alone, <u>making it the state with the largest loss of farms in the U.S.</u> These trends are expected to continue as North Carolina continues to promote roadway infrastructure, development and urbanization further from metropolitan center districts. Past State and Federal initiatives to minimize farmland losses appear to be having little effect on these alarming trends. ...Table 4-11 provides impacts to VAD properties and DSA 9 would potentially impact 449.1 acres and 10 properties that are participating in the farmland preservation program. The statement concerning Gaston County planning staff and future land use (i.e., greater suburban development) appears to be inconsistent with the intent of NC General Statute for VADs.	The Gaston County Comprehensive Plan notes that farmland is an important resource in the Southeast and Southwest Small Areas. The Comprehensive Plan also supports construction of the Garden Parkway. Proper planning, which is the responsibility of Gaston County and its municipalities, can provide for development in accordance with the community's values. Farmland was considered in the evaluation of all the DSA's, and in the selection of the Preferred Alternative. DSA 9 is one of the alternatives that would impact the least acreage of land in Voluntary Agricultural Districts, 49.2 acres, as listed in Table 4-11 of the Draft EIS. DSA 9 also is one of the DSAs with the fewest impacts to agriculturally maintained lands. As listed in Table 6-4 of the Draft EIS, DSA 9 would directly impact 177 acres of agricultural land (including the VADs), which represents 10.1 percent of the land directly impacted by DSA 9 (1,794 acres). The refined preliminary design for the Preferred Alternative reduced impacts to agricultural lands to 146 acres. In comparing the DSAs for indirect effects on farmland, DSA 9 is one of the DSAs with the lowest potential (Table S-2 of the Draft EIS) since it is generally closer to existing developed areas. Property owners who enroll their farmland in the Gaston County VAD program have the right to public hearings in their communities if there are ever land condemnation proceedings for lands within the districts. The NCTA will work with Gaston County to conduct these public hearings at the appropriate time in accordance with the Gaston County VAD ordinance.
33	Farmland	EPA also does not concur with the 'relocation assessment' for active farms that will need to be relocated and that there is 'suitable replacement property' available.	In accordance with federal and state law, displaced farms are eligible to receive the fair market value of the land as well as any structures that would be taken by the project. In addition, farm owners are eligible to receive reimbursement for moving and relocation expenses. In some cases farm owners may be eligible to receive funding associated with the reestablishment of their farm.
34	Farmland	The DEIS does not offer any potential avoidance and minimization measures (e.g., reduced right of way, keeping to property boundaries, providing access to dissected fields, etc.) to potentially reduce impacts to farmlands.	Design refinements that reduced the footprint of the Preferred Alternative are described in Section 2.3 of the Final EIS. As listed in Table 6-4 of the Draft EIS, DSA 9 would directly impact 177 acres of agricultural land (including the VADs), which represents 10.1 percent of the land directly impacted by DSA 9 (1,794 acres). The refined preliminary design for the Preferred Alternative reduced impacts to agricultural lands to 146 acres.
35	Comment Noted	Potential impacts to archeological sites are considered to be 'Moderate', but final surveys have not been conducted.	An intensive survey for archaeological resources was conducted for the Preferred Alternative (DSA 9). The results are reported in Section 2.5.3.2 of the Final EIS.
36	Protected Species and Wildlife	Due to the rural nature of a substantial portion of the project study area and the significant impacts to terrestrial forests, the EPA believes that wildlife habitat fragmentation is a potentially significant issue, including safety concerns. EPA believes that further consultation with FWS and	Habitat fragmentation was evaluated for all DSAs in the qualitative indirect and cumulative effects analysis summarized in Chapter 7 of the Draft EIS. As stated on page 6-18 of the Draft EIS, and in the list of Special Project Commitments, the NCTA will coordinate with the NCRWC, USFWS, and USEPA during final design on the

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		WRC is needed to identify wildlife crossings and other minimization measures involving large mammals such as deer, and a new, high-speed, multi-lane facility. EPA notes the comments on page 6-18 of the DEIS concerning the feasibility and design of the wildlife passage at Stream S156.	feasibility and design of a wildlife passage at Stream S156, and on designing bridge crossings to be wildlife friendly when feasible. Habitat fragmentation is further evaluated for the Preferred Alternative in the quantitative indirect and cumulative effects analysis summarized in Section 2.5.5 of the Final EIS.
37	Indirect and Cumulative Effects	In general, the Indirect and Cumulative Effects (ICE - Section 7) is not specific, and provides no quantitative data to characterize the existing conditions in the project area (such as percent land use by commercial, agriculture, etc.). There are no quantitative data concerning potential impacts to wetlands, streams, water quality, and habitat. Section 7 of the DEIS only provides qualitative statements, and in some cases, subjective conclusions. The DEIS assumes that growth will continue in the corridor regardless of the construction new location roadway, and that the existing local and state requirements will minimize impacts. However, no data is provided to support these conclusions. For this proposed toll facility, the ICE is broken up into 'Districts'. EPA does not concur with numerous subjective statements concerning future development and growth 'without' the proposed project. Interchange locations as identified on pages 7-14 and 7-15 are very likely to develop in the future - but only with the new roadway.	Chapter 7 is a summary of the technical memorandum titled <i>Indirect and Cumulative Effects Assessment for the Gaston East-West Connector</i> (2009), incorporated by reference into the Draft EIS and available on the NCTA Web site. The study is a qualitative ICE performed in accordance with NCDOT guidance titled, <i>Assessing Indirect and Cumulative Effects of Transportation Projects in North Carolina</i> (November, 2001). Data used in the evaluation, as documented in the technical memorandum, included interviews with local agency staff and local experts, as well as extensive use of Geographic Information System (GIS) data. This information was evaluated at the ICE Study Area level, the District Level, and the Interchange Area level (Figure 7-1b in the Draft EIS). Potential effects with and without the proposed project at each Interchange Area were qualitatively evaluated. A <i>Quantitative Indirect and Cumulative Effects Analysis</i> was performed for the Preferred Alternative and is summarized in Section 2.5.5 of the Final EIS. This study provides quantitative estimates of potential land cover for the area with and without the proposed project.
38	Indirect and Cumulative Effects	DEIS Figure 7-2 and page 7-12 of the ICI demonstrates the expected travel 'time savings' from the project. More than half of the project area shows little if any (0-5 minutes) 'time savings' in travel from the proposed project. The greatest area of travel time improvement is along the project in the southeast corner of Gaston County, and south to York County. There appears to be little to no change for most of Gaston County and project study area. However, Table 7-2 on page 7-20, which indicates a "High Potential for Project to Improve Mobility, Access, and Connectivity" in both Gaston and Mecklenburg portions of the ICE study area, which is inconsistent with the fact that more than half of Gaston County's portion of the study area is shown with little to no 'time savings', and all of Mecklenburg County's portion of the study area is shown with little to no time savings (Figure 7-2).	Figure 7-2 reflects output from the Metrolina Regional Travel Demand Model for overall travel savings experienced by ALL trips in a particular traffic analysis zone (TAZ), whether those trips actually use the proposed project or not. Since this reported value includes many types of trips (through trips, local trips, trips that use the proposed project, trips that do not use the project, home-to-work trips, home-to-shopping trips, etc.), it would not be expected to show such dramatic savings as specific origin/destination pairs. These calculations of average travel time savings provide a basis for assessing the overall effect of the project on travel times in each TAZ and help to show locations that would experience increase mobility. There are a number of elements that contribute to the High "Potential for Improved Mobility, Access and Connectivity" referred to in Table 7-4. "Average Travel Time Changes" depicted in Figure 7-2 is just one of many factors that influenced this determination. Additional factors include, but are not limited to: travel time savings for specific origin/destination pairs, new connectivity provided by the project, and regional statistics on congestion. Appendix C of the Draft EIS provides an expanded discussion of travel time savings and regional statistics on congestion.

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39	Editorial	<p>EPA notes that the DEIS is divided into twelve (12) sections. There is a recommended format for environmental impact statements specified at Title 40 of the Code of Federal Regulations Section 1502.10. EPA recommends that the FEIS for this proposed toll facility be presented in the recommended format contained in the CEQ regulations. Subsections under the basic chapter headings might be used as appropriate.</p>	<p>The FHWA has determined the most appropriate format for the Final EIS, which is a condensed Final EIS, as allowed by FHWA Technical Advisory T6640.8A and CEQ 40 CFR 1502.10. CEQ states that “NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail” (40 CFR 1500.1). The FHWA Technical Advisory notes that in the traditional approach, “Since so much information is carried over from the draft to the final, important changes are sometimes difficult for the reader to identify.” (www.environment.fhwa.dot.gov/projdev/impTA6640.asp). The guidance also suggests that the condensed Final EIS approach “avoids repetition of material from the draft EIS by incorporating, by reference, the draft EIS. The final EIS is, thus, a much shorter document than under the traditional approach.” The guidance states that either of these two approaches “can be employed on any project.”</p> <p>The NCTA believes that the condensed Final EIS format for the Gaston East-West Connector Final EIS will result in a much more reader-friendly document. The condensed Final EIS will afford the NCTA a better format than the traditional approach for highlighting important changes that have occurred since the Draft EIS and new information that has been considered. These changes include, but are not limited to, selection of the Preferred Alternative/LEDPA, updates to air quality conformity issues, a new quantitative indirect and cumulative effects study for the Preferred Alternative, and changes to the designs within the Preferred Alternative corridor since the Draft EIS.</p> <p>The FHWA guidance states that the condensed Final EIS should briefly reference and summarize information from the Draft EIS that has not changed and to focus on discussion of changes in the project, its setting, impacts, technical analysis, and mitigation that have occurred since the Draft EIS was circulated. The condensed Final EIS must identify the Preferred Alternative, explain the basis for its selection, describe coordination efforts, and include agency and public comments, responses to these comments, and any required findings or determinations. The condensed Final EIS format should parallel the Draft EIS.</p>